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THE ZOOLOGIST:

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OF

NATURAL HISTORY,

AND

JOURNAL FOR RECORDING FACTS AND ANECDOTES

RELATING TO

QUADRUPEDS, BIRDS, REPTILES, FISHES, MOLLUSKS,
INSECTS, WORMS, ZOOPHYTES, &c.

THEIR HABITS, FOOD, RETREATS, OCCASIONAL APPEARANCE,
MIGRATIONS, NESTS AND YOUNG.

No. CCLXIV.

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Price ONE SHILLING.

Subscribers are respectfully reminded that their prepaid subscription expires on the 1st of December, when 15 numbers will have been delivered post free for Twelve Shillings.

Papers with the following signatures have been crowded out:—E. H. Rodd, J. H. Gurney, Robert Swinhoe, P. H. Gosse, H. Hadfield, Percy C. Wormald, W. R. Hughes, Thomas Cornish, Samuel Carter, Arthur Hewgill, Robert W. Leven, Francis Owen, John Ranson, John Baker, B. Kendrick, Alfred Newton, Thomas Huckett, Sidney Godwin, Edward Newman's descriptions of Larvæ.

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H. ROGERS, NATURALIST, has the following Insects for Sale, collected by him this season.

	s.	d.		s.	d.
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Also many others, and a good Collection of Birds' Eggs, collected this season.

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Edward Newman will be glad to purchase No. 238 of the 'Zoologist,' dated January, 1862, for Two Shillings. Through the kindness of Mr. Anderson, of York, and Mr. Carter, I have received copies of this number, and cannot again offer the volume for 1862 as advertised above.

The Otter near Liverpool. — A very fine male otter was captured this morning in Bromborough Pool, just above this factory. He was seen on the bank opposite the works, and after a sharp chase of two hours, in boats, was stunned by a blow with a stone, and captured alive. He is still alive, but is, I fear, injured internally, as he appears very dull and sluggish this afternoon. He was first seen near the mouth of the Pool, consequently in fully salt water, and hence I suppose him to have strayed up from the Mersey. A partly grown otter was seen by a colleague, some two or three years ago, in the small stream which runs into the Pool from Raby Mere, but was not seen or heard of afterwards. There seems no reason to suppose this to be the same individual, as it is scarcely probable that such an animal could entirely escape notice, even if it could find subsistence, in so small a rivulet as that which forms the commencement of the Pool. It is however, I believe, a very rare occurrence to find the otter in salt water. Mr. Moore, of the Museum, to whom I go for assistance and information in all Natural-History matters, tells me that the occurrence is sufficiently uncommon to render it worthy of notice. — *W. H. Hatcher; Price's Bromborough-Pool Works, near Birkenhead, September* 15.—'*Naturalists' Scrap-Book*,' p. 105.

[I suspect the persecution of the otter may hereafter be thought a mistake, like that of the barn owl and some other birds. The otter revels on eels, and eels on the fry of trout and salmon.—*Edward Newman.*]

A Whale stranded at Speke. — On Friday, July 17th, a large specimen of a whale was observed by some fishermen stranded on a sand-bank at Speke: its struggles were so violent that no boatmen durst venture near it; all they could do for a length of time was to keep an eye on it. When dead it was secured with ropes and towed to the shore. A notice in the daily papers attracted many people to see it, and for several days it was kept for public inspection. I visited it on the 22nd, in company with Mr. Turner, of the Royal Institution, and Mr. Rouleton, of the Lending Library; and we made an external examination, and took correct measurements as under. It was lying on its back, a position very favourable for examination of the under surface, but hiding all view of the blowers. I believe it to be a specimen of Johnston's hump-backed whale (Megaptera longimana of Dr. Gray's 'Catalogue of the Cetacea in the British Museum,' 1850, p. 26), and if so it would appear to have been, up to that date, only once observed on the British coast, namely, at Newcastle, by Dr. Johnston; and it is remarkable that both specimens were females. The dimensions are:—Total length in a straight line from snout to cleft of tail, 31 feet 4 inches; length of gape, about 8 feet; from snout to the eye, 8 feet; length of eye, 3 inches; from the snout to commencement of the pectoral fin, 11 feet; length of pectoral fin, 10 feet; extreme width of tail at the tips, 11 feet; from the snout to commencement of the dorsal fin, or rather hump, 18 feet; length of dorsal fin, 3 feet 3 inches; from snout to cloaca, 21 feet. I had no opportunity of examining the viscera, but learned from the butchers that a quantity of shrimps were found in the stomach. The genus Megaptera is distinguished from the genus Balæna, or true whalebone whales, by the presence of a dorsal fin or hump; by the belly being plaited or deeply grooved, and the plates of baleen being broad and short, which characters agree with this specimen. The longest plate of baleen measures about 2 feet long by 5½ inches at base, and they were so close together that I counted thirty-eight in the length of a foot. The creature was quite black, except the belly, which was mottled and streaked with white, and the pectoral fins were milk-white, except a black blotch here and there. The carcase was purchased by Mr. Brock, of Clement Street, Vauxhall Road, who has most liberally presented the skeleton to this museum, and it is now being prepared, but some months will elapse before it is ready for inspection. — *Thomas J. Moore; Museum, William Brown Street, Liverpool.*—'*Naturalists' Scrap-Book,*' p. 103.

The Ornithology of Formosa or Taiwan.

By Robert Swinhoe, Esq., F.L.S., F.G.S., &c.*

(Concluded from page 8760).

81. Anthus Richardi, *Vieill.*

82. Alauda cœlivox, *Swinhoe, Zool.* 6723. Throughout the plains, the downs, the grassy plateaux, wherever the locality is suitable in Formosa, this little lark is found, delighting the ear of the savage, the colonist, and the adventurer alike, with its sweet song as it disappears into the sky. But it often also sings on the ground, or mounted on some stone or prominence. In the Pescadore Islands, between Formosa and the main, it is also very common, and almost the only bird there. It is abundant in the South of China, from Canton to Foochow. In Shanghai it is replaced by a similar form, but intermediate in size and proportions between it and the so-called A. arvensis of Peking and its neighbourhood. In my large series of skins from Formosa there is considerable variation in the length and thickness of the bill, some, in the bulkiness of that organ, drawing close to the Mirafræ of Africa and India. For a more detailed account of this bird I must refer my readers to the 'Zoologist' (Zool. 6723).

83. Emberiza spodocephala, *Pall.*

84. E. sulphurata, *Schleg.*

85. E. aureola, *Pall.*

86. E. fucata, *Pall.*

87. E. cioides, *Temm.*

88. Fringilla sinica, *L.*

89. Passer montanus, *L.* The prevailing house sparrow, as in China. Its eggs are very variable, even in the same nest, as to colour, size and shape.

90. P. russatus, *Temm. & Schleg. Faun. Japon.* p. 90, pl. 50. In places where it occurs it is a shy bird, frequenting retired spots on

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* I have lately seen the specimen of Regulus modestus in Mr. Hancock's collection at Newcastle. That bird was shot by Mr. Hancock on the coast of Yorkshire, and I can vouch for its being identical with our Chinese Reguloides superciliosus, mentioned at page 8557.—*R. S.*

the woody hills, and nesting in holes of trees. In fact, as regards its habits, it may be called the tree sparrow of Eastern Asia, the true tree sparrow of Europe having there usurped the position of the house sparrow, which does not occur.

91. Munia acuticauda, *Hodgs. As. Res.* xix. p. 153, 1836. In Formosa this is an abundant resident species, being met with in all plantations throughout the low country in small parties. It is a lively little bird, constantly moving about its perch, whisking its pointed tail from side to side, and uttering a rather musical trill-note. It generally prefers selecting a building-site in the neighbourhood of human dwellings, placing its wren-like nest in some bush five or six feet from the ground, often in quite exposed places; but being such a small, delicate bird, and so gentle and familiar in its habits, it is protected by the Chinese, and looked upon as the harbinger of good. It is known in Amoy as the O-pe-la; in Formosa as Aw-tsew-pe-la. In its disproportionately large and not very elegant nest it seldom lays more than three eggs, quite white when blown, but when fresh of a pale ochreous-pink. The males and females are similar in plumage; the young are of a light olive-brown, whitish on the under parts, but always having the white rump-band. This species has been semi-domesticated in Japan, where it breeds, like the canary, in confinement, and produces every variety of albinism and melanism. There are several living examples of these varieties at present in the gardens of the Zoological Society of London.

92. M. topela, *Swinhoe;* Chinese, Topelá. It is often kept in confinement. When singing the male draws himself up to his full height and stretches out his head, the beak is opened, and the throat shaken; but only a low murmuring sound is emitted, which is scarcely audible to a person standing close to the bird: it is the most absurd attempt at singing that ever I witnessed; and yet it draws forth the admiration of the females, for while he is so engaged numbers draw round him and bend their heads forward to listen.

93. Heterornis sinensis.

94. Sturnus cineraceus, *Temm. Pl. Col.* 563; *Faun. Japon.* pl. 45.

95. Acridotheres cristatellus, *L.*

96. Corvus sinensis, *Gould.* Unfortunately I did not procure a specimen, owing chiefly to the great objections the natives had to shoot them. The Chinese colonists there look upon this bird with a kind of superstitious reverence; "for," say they, "whenever the savages sally out and kill any of our number, this crow always sets up a sympathetic 'laou-wa' (or wailing cry)." I asked them if the

crow was not always setting up this cry, whether any mishap had happened to them or not. In reply to this they shrugged their shoulders and laughed, as they always do when the follies of their superstitions are pointed out to them, but they do not believe in them the less for that.

97. Pica media, *Blyth.*

98. Urocissa cærulea, *Gould, Proc. Zool. Soc.* 1862, p. 282. The mountain nymph is by no means an uncommon bird in the large camphor-forests of the mountain range. It is there to be met with in small parties of six or more, flying from tree to tree, brandishing about their handsome tail-appendages, and displaying their brightly contrasted black-and-azure plumage adorned with white, and their red bill and legs, among the deep foliage of the wood. They are shy birds, soon taking alarm at the approach of a stranger, giving warning to each other in loud notes, and then gliding away one after another with a straight flight into an adjoining tree (the flight being executed with short quick flaps of the wing, while the body and tail are held nearly horizontal). They feed on wild figs, mountain berries, and insects, chiefly Melolonthine Coleoptera.

99. Garrulus taivanus, *Gould, Proc. Zool. Soc.* 1862, p. 282. Though the members of this genus are somewhat migratory, yet their peregrinations are always within a limited sphere; and wherever the jay occurs in isolated localities we meet with aberrations from the typical form. This apparent rule in this interesting group is highly suggestive.

100. Dendrocitta sinensis, *var.* Formosæ.

101. Megalæma nuchalis, *Gould, Proc. Zool. Soc.* 1862, p. 283. This barbet is a true forest-bird, frequenting the higher mountains of the interior, where it may be met with in great abundance, though generally scattered through the wood singly or in pairs. It affects the highest branches of large trees, sitting solitary and often motionless for hours together. Its note is loud and discordant, the bird often making its presence known by its voice when one would otherwise pass it by unnoticed from the resemblance of its plumage to the general foliage. When seen flying from tree to tree it looks like a cross between an oriole and a parrot, if such a thing can be imagined. It feeds on berries and occasionally on insects, also, as I am told, on small birds.

102. Gecinus tancola, *Gould, Proc. Zool. Soc.* 1862, p. 283.

103. Picus insularis, *Gould, Proc. Zool. Soc.* 1862, p. 283.

104. P. kaleënsis, *Swinhoe.*

105. Centropus viridis. This bird is fond of perching on the thick foliage of evergreen trees, balancing itself on its unstable perch by means of its wings, and springing from one branch of leaves to another, by means of its long lark-like claws, after locusts and other soft insects of that family. It suspends its large rush-framed cradle between the long leaves of the sugar-cane and other reeds, weaving the dried hanging leaves into the bottom of its nest, and thus forming them into supports. In this rather rude structure it lays generally four white eggs, which vary much in shape and size, but are usually obtuse at both ends, averaging 1·3 by 1 inch, are rather thick-shelled and rarely glossy. Its flight is straight, executed with short flaps and once and again a motionless sail through the air, the tail being held somewhat horizontally, but generally rather on the decline. At the end of September, 1861, a nest of four live young birds was brought to me, and I kept them alive some time. Like other young cuckoos, their appetites were insatiable, and when nearly choking they would still continue their cry for more food. This cry is a loud and frequent imitation of the syllable "churr." As soon as you left them to themselves their notes would change to "toc-toc-too," uttered in a subdued voice. This last note is often heard from the adult bird. The little creatures, only partially clothed with a rufous down, with the quills only just beginning to sprout, looked complete oddities. Their mouths were of a dark red-pink. A week after, the inside of their mouths had paled to flesh-colour with the top of the tongue black, the beak was flesh-coloured washed with brownish, irides gray, legs leaden violet; the lark-heel was then very short.

106. Cuculus kelungensis, *Swinhoe.*

107. C. canorus, *L.* On the coast near Taiwanfoo I procured a stray specimen of this species. Mr. Blyth has examined and identified it. It was procured in September, and was apparently on its southerly migration. I never heard or saw the European cuckoo at any other time in Formosa.

108. Treron Formosæ, *Swinhoe.*

109. Turtur rupicola, *Pallas.*

110. T. chinensis, *Scop.*

111. T. humilis, *Temm.*

112. Coturnix communis, *Bonn.*

113. Turnix ocellatus, *Scop.* Chinese name, Bo-bay (tail-less) Kaw-toon.

114. Excalfactoria chinensis, *L.* Chinese name, Koo-lew.

115. Bambusicola sonorivox, *Gould, Proc. Zool. Soc*, 1862, p. 285.

Native name, Teëk-koë (Bamboo-fowl.) This and the Foochow bamboo-fowl are of very similar habits and notes. This species is found throughout all the hills of Formosa, generally scattered about the bush, never in coveys. It is very puligistic, the males and females both singing the same loud cry, beginning with "killy-killy," and ending rapidly with "ke-put-kwai," which is so powerfully uttered that it may be heard at a great distance. They are not easily flushed, lying so close to the ground that you may walk over the spot whence the noise appears to come, and rarely put up the bird. Each pair selects its own beat, setting up, frequently during the day, the challenge-note; and woe betide any other partridge that encroaches on the forbidden ground! They both set on him at once, and buffet him without mercy till he takes to his heels. This pugnacious propensity often meets, as it perhaps deserves to do, with an evil fate. The Chinese fowler listens for the challenge, and sets on the disputed hill a trap with a caged decoy within. The decoy is trained, and sets up a reply. The lord and lady of the manor rush to the spot, and run recklessly into the trap and are caught. The captures are taken to the market and sold as cage-birds, the Chinese having a great love for the horrible screeching cry that this bird is incessantly sending forth. In the night this bird leaves the shelter of the grass and bush, and repairs to the branches of bamboos and other trees to roost. It is an excellent percher, being quite at home on a branch, in which respect it differs from the Chinese Francolin (*Francolinus perlatus*), which never perches. It nests in a depression in the ground, usually under shelter of a bush or tuft, and lays a large number of eggs, from seven to a dozen or more. The eggs a good deal resemble those of the common partridge, being of a dark brownish cream-colour.

116. Phasianus torquatus, *Gmel.*

117. Euplocamus Swinhoii, *Gould, Proc. Zool. Soc.* 1862, p. 284. I was informed by my hunters that a second species of pheasant, which was denominated by the Chinese colonists Wá-koë, was found in the interior mountains; that it was a true jungle-bird, frequenting the wild hill-ranges of the aborigines, and rarely descending to the lower hills that border on the Chinese territory; and that in the evening and early morning the male was in the habit of showing himself on an exposed branch or roof of a savage's hut, uttering his crowing defiant note, while he strutted and threw up his tail like a rooster. I offered rewards and encouraged my men to do their utmost to procure me specimens of this bird, and I was so far successful that I managed to obtain a pair; but in my trip to the interior

it was in vain that I sought to get a view of it in its native haunts, and to make acquaintance with it in a state of nature.

118. Glareola orientalis, *Lath.* The flight of this bird is much like that of the golden plover, only swifter, with more evolutions. Its eggs are four in number, laid in a depression in the ground. It often feeds on the Cicindelæ that swarm on the sands: running with velocity after its prey, springing lightly into the air as the insect takes wing, and snapping it with a quick turn, in the manner of a Muscicapa it wheels round and alights again on the ground.

119. Squatarola helvetica, *L.*
120. Charadrius longipes, *Temm.*
121. Ægialites Geoffroii, *Wagl.*
122. Æ. cantianus, *Lath.*
123. Æ. philippinus, *Scop.*
124. Hæmatopus longirostris, *Gray.*
125. Recurvirostra Avocetta, *L.*
126. Totanus glottis, *L.*
127. T. stagnatilis, *Bechst.*
128. T. calidris, *L.*
129. T. glareola, *Gmel.*
130. T. ochropus, *L.*
131. T. brevipes, *Vieill.*
132. Tringoides hypoleucos, *L.*
133. Limosa uropygialis, *Gould, B. of Austr.* vi. pl. 29.
134. Numenius minor, *Schleg. Faun. Japon.*
135. N. uropygialis, *Gould.*
136. N. major, *Schleg. Faun. Japon.*
137. N. arcuatus, *L.*
138. N. rufescens, *Gould, Proc. Zool. Soc.* 1862, p. 286.
139. Tringa Cinclus, *L.*
140. T. acuminata.
141. T. platyrhyncha, *Temm.*
142. T. Temminckii, *Leisler.*
143. T. damacensis.

144. T. albescens, *Gould.* The small parties of these birds that visit our salt-marshes rise all together, when disturbed, with a loud twittering note. When one is wounded its companions fly round and about it to try and render it assistance, in the manner of curlews, and often keep by the fallen until it dies, thus too frequently endangering their own lives. I have not observed this sympathy with the distress of its fellows displayed by any other species of Tringa.

145. Calidris arenaria.
146. Strepsilas interpres, *L.*
147. Lobipes hyperboreus, *L.*
148. Scolopax rusticola, *L.*
149. Gallinago scolopacina, *Bonap.*
150. G. stenura, *Temm.*
151. G. megala, *Swinhoe. Ibis*, 1861, p. 343.
152. Ibis nippon, *Schleg. Faun. Japon.*
153. Platalea major, *Schleg. Faun. Japon.*
154. Ardea cinerea, *L.*
155. Herodias alba, *L.*
156. H. garzetta, *L.*
157. H. eulophotes, *Swinhoe, Ibis*, 1860, p. 64.

158. Buphus coromandus, *Bodd.* This species arrives in Formosa in April in very large flocks, which do not separate, but breed together, feed together, and remain in constant company till they leave our shores again in the beginning of October. They are very partial to insects, and may be frequently seen seated on the backs of and near cattle, catching the flies that swarm about them. I have found in their stomachs maggots, grasshoppers, and many other insects; but they do feed on fish when they can get them, though they are by no means such assiduous fishermen as many of their brethren are. They are much tamer than most herons, and so are easily approached within shot. In confinement they soon become tame and docile, and will feed readily on almost any food offered. They often build in company with the egrets and other herons on the branches of trees, fighting and squabbling together, and robbing one another's nests of materials in much the same manner. The nest is merely a small flat pannier of twigs, on which three eggs are usually laid. The eggs are bluish white, with a tinge of green, much lighter and rather larger than those of H. garzetta. In South China and Formosa this bird, as I said before, is only found as a summer visitant, wending southwards in winter, which season it doubtless passes in India and its archipelago, though I can find no note of that in any work.

159. Butorides javanicus, *Horsf.* This solitary, skulking, bittern-like species is abundant in all marshy grounds throughout Formosa, a few also occurring in winter. It feeds by day, prowling about in the water-covered fields of paddy, searching for tadpoles, shrimps, and small fish, as well as for grasshoppers and many kinds of insects. At night it roosts on long reeds and bamboos, or on the branches of trees. On these I have seen it nesting. I procured one egg at Taiwanfoo,

which is of a pale duck's-egg colour, 1·63 inches long and 1·25 broad. The young are more like the adult than is usually the case among the lesser herons.

160. Ardeola prasinosceles, *Swinhoe, Ibis*, 1860, p. 64. Our Ardeola is a constant resident in South China and Formosa, frequenting wet paddy-fields during the day, where they feed on grasshoppers and almost anything they can catch, and roosting at night on the banyan and other large trees. They are called Tsan-la, or rice-field herons, by the Chinese, and paddy-birds by Europeans. They may often be seen together in the same field, as they are a common species, but they neither associate in flocks nor breed in company. Their wicker nests are usually placed on the high branches of banyan trees; and their eggs, seldom exceeding three in number, are bluish white and rather large. The young birds are splashed with dusky on the wings, but they are otherwise very similar to the adult in winter dress. In September the summer plumage begins to fall away, and is replaced by the winter feathers, in which latter dress, as has been before remarked, the several species of the genus are almost undistinguishable from one another. In April the complete nuptial dress is again assumed.

161. Ardetta flavicollis, *Lath.*

162. A. cinnamomea, *Gmel.*

163. A. sinensis, *Gmel.*

164. Nycticorax griseus, *L.* In summer, when the young require incessant feeding, it is not unusual to meet the night heron abroad during the day, searching for food; but at other seasons it is strictly a night bird, roosting in daylight in company, among osiers or bamboos, on the banks of inland waters, and rambling about in the twilight and darkness of night in search of food. In the darkest nights their loud "kwa" may be heard as the birds are winging their way overhead. The Chinese call them Am-kong cheow, or bird of darkness, and look upon them with superstitious dread. They are thought to have some connexion with evil spirits; and as it is the Chinese custom to propitiate the evil demons, that they may not play any of their mad pranks on humanity, so they give protection to these their birds. In large cities superstition is laughed down, and not so prevalent; we therefore, in the Formosan capital, were not thought to commit any great sin in disturbing the ill-hallowed bird; but among the country people at Tamsuy, the villagers for miles round would flock to us when we were out with guns, and beg us not to disturb a colony of night herons that had commenced nesting operations in a fine

bamboo-grove. This plantation of tall bamboos, mixed occasionally with longans and other trees, was on a hemp-farm of some four acres, which is entirely encircled. The flock of night herons, about two hundred or more in number, showed themselves about this wood for the first time in March. For a fortnight they merely made it their roosting-site for the day. In April all was excitement, fighting and building; and towards the middle of the month many of the birds were laying. In the first few days of April a large colony of egrets came to the same trees, and about the middle of the month a large flock of yellowheads (*Buphus coromandus*). At first the confusion was very great, the flocks of the several species coming into constant collision; but before the end of April all seemed amicably arranged, and you could often see on the same tree several nests of the three distinct herons, the females of each sitting, and the males standing by to protect. This large mingled heronry was a most interesting sight, and many times on a fine evening I have taken boat and crossed over to the heron farm to view it. The farm-house stood at one end of the plantation; and its inhabitants were always courteous and kind, and allowed me to roam about their grounds as I pleased. A small wood of large trees stood close to the cluster of huts, and these a party of gray herons had made their home; and here and there among the bamboos you could observe a few of the yellowbilled egret. Thus, within the precincts of these few acres, one had the opportunity of watching and comparing the habits of no less than five interesting species of herons. Few naturalists, I fancy, could ever have had such an opportunity as this; but my time was short, and I was obliged to leave the country before Ardea cinerea and Herodias eulophotes had commenced laying. The bamboos were mostly thirty or forty feet high, bending and curving in all directions, and on almost every available spot throughout their quivering lengths the wicker nests were placed. As you made your way through the dung-stained herbage underneath, clouds of all the several species rose from the trees above, and hovered about the air croaking and screaming. As soon as you had stalked on a few paces, the birds alighted again on their respective positions, and continued their avocations as before. The bamboo is too unstable a tree to trust one's weight to at the height required to be reached for the nests, and they were moreover covered with prickles. I was therefore obliged to look to the dark-leaved evergreen, the longan, for eggs. Out of one of these I procured several eggs of three species—Buphus coromandus, Herodias garzetta, and the Nycticorax. There were always three in each nest. The eggs of the night heron were the largest and greenest; those of the yellowhead pale bluish, almost white, and finer grained; those of the egret smallest and bluish green. I have seen many heronries in different parts of China and Formosa, but none that I ever saw were so large or so excitingly interesting as the one on the Tamsuy river. It was a sight not easily to be forgotten.

165. Gallicrex cristatus.
166. Porzana fusca, *L.*
167. Gallinula phœnicura.
168. G. chloropus, *L.*
169. Rallus striatus, *L.*
170. Larus crassirostris, *Vieill.; Bp. Consp.* p. 212.
171. L. niveus, *Pall.*
172. L. cachinnans, *Pall.*
173. Chroicocephalus Kittlitzii, *Bruch.*
174. C. ridibundus, *L.*
175. Hydrochelidon indica, *Steph.*
176. Sternula sinensis, *Gmel.*
177. S. minuta, *L.*
178. Sterna cristata, *Steph.*
179. S. caspia, *Lath.*
180. Anoüs stolidus, *L.*

181. Diomedea brachyura, *Temm.* The albatross on wing is never figured correctly. When flying the wings are curved like the head of a pickaxe, and it skims the surface, rising and falling with every trough of the sea, with scarce any motion perceptible in the wings, except at their tips. They often sail upwards, and continue in their flight, throwing first one shoulder forward and then the other. In the male of this albatross the bronchi, on leaving the trachea, bulge considerably as they run horizontally, then contract and bend forwards and downwards, and lastly, turning sharp round, rise upwards and bulge again before entering the lungs. In the female they are short and simple, without convolutions.

182. D. nigripes, *Aud. Orn. Biog.* 1839, p. 327. I kept four of this species, and two of the Diomedea brachyura, alive for some days in my verandah at Amoy, but could not get them to feed. The first few days they used to walk about in a clumsy manner, but afterwards they got weaker and could not manage to rise. Both species had a common habit of stretching the neck and raising the bill upwards, uttering at the same time a loud, hollow-sounded, moaning bellow, as of some animal in pain. The production of this sound seemed to

force up oily matter into the mouth, for the birds would go through the movements of swallowing for some time afterwards. Through the day, and often in the night, this miserable moan would be uttered at set intervals. I kept one of this species alive, to see how long he would live without food, and he lived on, week after week, without showing any particular signs of weakness, till about the 20th day. He then began to look shaky, but still obstinately refused to eat fish. On the 29th day he died: but his abstinence from food was in reality greater than that extraordinary number of days; for he had been in the possession of the fishermen who caught him nearly a week before he came to me. When fresh taken in the spring, the birds are particularly fat: but this starved specimen had survived on the gradual absorption of his adipose tissue; for when I dissected him his flesh was quite hard and dry, with scarce any signs of fat about any part. Birds of prey, and most birds that wander far and seek a precarious living, can survive a long while without food; but I never before heard of such an extraordinary power of abstinence as these albatrosses have proved themselves to possess.

183. Colymbus septentrionalis, *L.*
184. Podiceps minor, *L.*
185. Phalacrocorax carbo, *L.*
186. P. bicristatus, *Pall.*
187. Querquedula Circia, *L.*
188. Q. crecca, *L.*
189. Q. glocitans, *Pall.*
190. P. falcaria, *Pall.*
191. Mareca Penelope, *L.*
192. Dafila acuta, *L.*
193. Anas boschas, *L.*
194. A. pœcilorhyncha, *Pennant.*
195. Spatula clypeata, *L.*
196. Tadorna vulpanser, *Flem.*
197. Casarca rutila, *Pall.*
198. Fuligula marila, *L.*
199. F. cristata, *Ray.*
200. Clangula glaucion, *L.*
201. Mergus serrator, *L.*

There are, doubtless, other species comprised in the immense flocks of Anatidæ that spread down our shores during winter. None, however, as far as I am aware, stay to breed. Geese and swans I did not observe; but most certainly some species of these also come to us, as they descend to much lower latitudes on the coast of China. I may here remark that a black scoter duck, shot by Capt. Blakiston on the Yangtsze, turned out to be the American black duck (*Œdemia americana*, Swainson), and not the European Œ. nigra as one would have expected. I have never met with this duck, and have not, therefore, included it in my list.

The Osprey near Uxbridge. — A fine osprey, probably driven inland by stress of weather, was shot at Uxbridge on the 1st of this month. It had been observed in the neighbourhood for several days before it was killed. The stomach, which I had an opportunity of examining, was quite empty, with the exception of about half an ounce of sand or grit, kept in a moist state by being mixed with gluten, which I suppose must have been swallowed with a fish that had been killed and eaten upon a sandy shore. The bird was in fine plumage, and, when I saw it, was in the hands of Mr. Gardener, of Holborn, for preservation.—*J. Edmund Harting ; Kingsbury, October* 12.

Osprey in Cambridgeshire. — A fine young female was shot on the Ouze by Mr. Towgood, of Paxton Hall, St. Neots, on the 15th of September last. It had been seen several days previous, fishing in that locality. Upon dissecting it I found the remains of a perch, apparently, by the scales of the fish, from three-quarters to one pound in weight, and from the condition of the bird I have no doubt it had fared well in our neighbourhood.—*John Baker ; Cambridge.*

Food of Small Birds. — My observations this year have afforded me ground for hoping that the oft-repeated protests of naturalists and others, against the destruction of small birds, have not been fruitless. This summer I have noticed a fair number of all our common migratory insectivorous birds: whinchats, willow wrens, sedge warblers, whitethroats, cuckoos, tree pipits and wagtails, have been plentiful. Our resident birds, especially finches and blackbirds, are numerous; but this is to be attributed partly to the mildness of last winter, and to the abundance of haws and other winter food. But while congratulating ourselves on having done some good, we must not overlook the possibility of reactions. It strikes me that it would be an easy matter for certain birds to be allowed to increase much to our prejudice. Many writers include all the small birds in their commendations to favour; but it must be obvious that some small birds are much more useful to us than others. The sparrows, for instance, and perhaps some other granivorous birds—like moles, polecats, adders, and some of the rapacious birds—would soon become too numerous if allowed to multiply uninterruptedly, particularly in corn-growing and well-cultivated districts. The sparrow is an active and hardy bird, and does not suffer as much as our insectivorous residents from the severity of our winters. Further, its natural enemies are on the decrease. In regard to its feeding habits, from observations I have carried on the last three years, I am led to infer that its utility to the farmer and the gardener is greatly exaggerated. I believe the number of insects destroyed by the sparrow, as compared with the number destroyed by any insectivorous species, is quite insignificant. I examined the crops of ninety sparrows that had been shot by a keeper on the 27th of June, when insects were numerous, and I did not find a single insect; nearly all their crops were distended with corn procured from the stacks. In April I noticed sparrows feeding on the newly-sown barley-fields. In May and June I saw flocks feeding among the grasses. About the 20th of July I noticed them alighting on the fields of growing barley and wheat. I have examined a great many young of different ages, and, though I have found insects in their crops and gizzards, I have always found vegetable matters and sand. From what I have remarked I think the young are fed pretty largely on insects half the time they remain in the nest, that is, about a week; yet I have found young, not one-third fledged, whose crops contained nothing but wheat. I have found sand, or rather little angular bits of stone, in the gizzards of naked sparrows. Were very young sparrows fed entirely on insects, I imagine they would not need sand. Naturalists have been unanimous in charging farmers with the destruction of small birds; but I am not aware that the farmers about here have ever destroyed, or encouraged the destruction of, any small birds but sparrows. Poisoned seed is not used. It may be remarked, however, that the practice of sowing poisoned grain, though very dangerous and quite reprehensible, would never materially lessen the numbers of the small insectivorous birds, those that are of the most use in the field and garden, for they seldom, if ever, touch grain. It almost seems to me that the farmers have as much reason to complain of the naturalists as the naturalists have to complain of the farmers; for hundreds, perhaps I may say thousands, of insectivorous birds and their eggs are destroyed annually by naturalists, or so-called naturalists. Every rare bird is shot as soon as it alights on our shores. Many are proud to read of the capture of a rare bird, but nothing gives me greater pleasure than to hear of one having escaped the gun. Were certain of those birds allowed to establish themselves and multiply, they might have peculiar tastes, and rid us of insects, such as the larva of the gooseberry sawfly, which is disliked by our common birds, and thus be of the greatest service to the farmer and gardener. Ornithology would also be greatly benefitted; the habits of those birds could be studied more readily and more advantageously. I take it to be one of the grand duties of naturalists to point out which birds should be encouraged and protected, and to what extent; certain insectivorous birds might facilitate the increase of herbivorous insects by preying on carnivorous tribes, and thus be actually hurtful.—*G. Roberts; Lofthouse, Wakefield, September* 21.

Food of Small Birds. — I have read with much interest the article on the "Food of Small Birds" (Zool. 8760). It contains much valuable information, but still it is not "the whole truth." It may be that with *all* species the balance of the work they do is for our benefit. But there is no denying that some kinds, rooks and sparrows in particular, will do an amount of damage to the farmer that it is difficult to estimate. This is entirely ignored by the article before us. Very soon after the grain is formed in the wheat-ear the sparrow may be seen busy pecking it out, and frequently by the side of a thick hedge or copse, before the corn is ripe, a long strip several yards wide will be nothing but straw. In a dry season like the past summer, about a fortnight before the wheat was fit to cut, the rooks would select a piece bounded by ploughed land (without an intervening hedge), fly up to the standing corn, bite off the whole ear at its base, carry it into the ploughed land, and there quietly enjoy it. I had two pieces like this, in which two long strips, about three hundred yards by one yard, were completely destroyed; and the rooks would not be deterred by scarecrows of dead brethren, nor by the gun. Then, again, they will often settle on the shocks, and serve them in a similar manner. And when a field of corn is much laid they will sometimes take advantage of it. No stomach analyses will convince the practical farmer that they do not do him pounds' worth of actual damage, though, as I said before, the balance may be, and I believe is, on the right side for them. Rooks especially do us an amount of good, of which I fancy we have little idea.—*Edward T. Bennett; Betchworth, September* 6, 1863.

Food of Small Birds.—The old adage of "Audi alteram partem" ought to be considered. I observe the editor of the 'Zoologist' has resumed the subject; but his comparison of the French Government having "taken up" the subject and ventilated it is not a good parallel. The small birds in France are nearly all destroyed; I mean sparrows, finches of all sorts, and blackbirds and thrushes. In England these birds are too numerous, also sparrows and other small native birds. I mentioned in a former communication how much the landed property in France is subdivided, in consequence of there being no law of primogeniture; and all the enactments made will not cause an increase of small birds equal to that in England. In France even robins are dressed and eaten eagerly. A few years ago, on changing my residence, my gardener mentioned that it was no use to sow peas in a particular far-end of the garden, as the sparrows had hitherto eaten them all. The peas were, by my orders, sown there; and on their ripening they were beset by sparrows, but on having two or three killed every day for a week they deserted the peas. Rooks I have endeavoured to preserve for thirty years; but when I lived near my rookery I was compelled always to make a few examples when sowing my crop of potatoes. The worthy editor spares the robin (which is venerated all over England); but in July, if the bird were opened, you would report of his having eaten a few bunches of various fruits: he is a "robbing bird," but on a small scale and for a short period.—*H. W. Newman; Hillside, Cheltenham, October* 5, 1863.

[My much-respected namesake scarcely ventures to look the question full in the face; that a rook has stolen a potato, a magpie a silver spoon, a robin a bunch of currants, and a jackdaw a pair of spectacles, is recorded on the most unquestionable authority, and cannot be controverted: but these isolated facts do not carry with them the inference that the rook is particularly destructive to potatoes, &c. Mr. Bennett, a very scientific farmer, seems to me to take a much clearer view of the case, that "the balance of the work done by birds is for our benefit;" this is the philosophic plan, and not to select a single instance. Our French friends seem to me to have done this very fairly by exhibiting the contents of a stomach every month in the year. —*Edward Newman.*]

Food of Small Birds.—In your paper on the "Food of Small Birds" (Zool. 8760) you state that M. Florent-Prévost's series of specimens illustrating that subject "attracted no attention whatever." Permit me therefore to enclose the following extract from an article on "Ornithology in the International Exhibition," which appeared in the 'Ibis' for July, 1862, by which you will see that public notice was especially directed to those specimens while the Exhibition was still open. The 'Ibis' may not enjoy so large a share of support as other Natural-History periodicals, but it seems only fair to its editor that his efforts to keep its readers acquainted with what is passing in the ornithological world should receive their due acknowledgment. I may further add that, if my memory serves me right, a medal was very properly bestowed on M. Florent-Prévost for the same series of specimens.—*Alfred Newton; Magdalene College, Cambridge, October* 1, 1863. "The extensive area occupied by the French department contains several noteworthy objects to the ornithologist. Entering from Italy, a large series of well-mounted birds meets our eyes as they stand well arranged on the shelves to our left hand. There is first (886) a series of the principal types of mammals and birds considered to be useful and hurtful to agriculture in France. These specimens are borrowed, we believe, from the galleries of the Jardin des Plantes. They are all correctly named and labelled, and were, as we are informed, selected for the purpose by M. Florent-Prévost, Aide-Naturaliste to the Museum of Natural History of that establishment,—a name well known in the literature of Ornithology. The same gentleman exhibited (885) a very interesting series of the dried contents of the stomachs of the principal birds of France, arranged in order, with the object of showing the nature of their food. Each specimen is marked with the date at which it was obtained, and, as an accurate register has been kept of the birds' stomachs examined in this way for the last twenty-four years, the *résumé* gives a very fair notion of the nature of the sustenance of the birds of France in all seasons, and affords a base upon which they may be divided into the two catalogues of *utiles* and *nuisibles*." — *Ibis*, Vol. iv. p. 287 (July, 1862).

Food of Small Birds.— In your paper on the "Food of Small Birds" (Zool. 8760) should we not read "crow" for "rook"? or are we to understand that M. Prévost finds, from actual observation or examination, that the food of the rook, amongst other things, consists of "birds, field-mice, young rabbits, different animals and decaying substances"? If this assertion be correct, the rooks in France must live differently to those in England, I fancy, or my notions respecting the food of this species are erroneous. At all events, I may be allowed to say that, though I have repeatedly watched rooks feeding through a glass, and have examined the stomachs of several after they had been shot, I never could discover either the remains of "different animals" or "decaying substances;" nor have I hitherto heard of such a discovery having been made. I am therefore anxious to be set right on this point. — *J. Edmund Harting; Kingsbury, October* 12, 1863.

[I can throw no additional light on this subject.—*E. Newman.*]

Scarcity of certain Summer Birds.—Mr. Boulton notes (Zool. 8726) the scarcity of some of the summer birds of passage in Yorkshire. I have remarked the same in this district (West Sussex). The wryneck did not arrive until the 11th of April, which is some days later than usual; and I have not seen or heard more than one or two all the summer, whereas in former years we have had great numbers of them about, and their note has been common almost every day through the months of April and May. The redstart also, though it does not breed here, usually visits us on its way northward, arriving from the 2nd to the 6th of April; this year it did not appear until the 14th, and then in extremely limited numbers. The redbacked shrike, again, was both late and scarce; and the same may be said of almost all the summer migrants. The wood and grasshopper warblers, on the contrary, have been more numerous this year than formerly. Can you or any of your readers assign a cause for the lateness of arrival and scarcity above mentioned? — *W. Jeffery, jun.; Ratham, Chichester, September* 9, 1863.

Arrival and Departure of Summer Birds at Taunton.—I enclose a list of the summer migratory birds I have been able to observe this year. As to swallows, I first saw them at Paignton, near Torquay, on the 10th of April, and here in Somersetshire on the 12th. Swifts I first saw on the 8th of May, at Teignmouth, and they must have departed between the 18th and 25th of August, during which time I was away, as there were plenty of them when I went, but none when I returned. Spotted flycatchers I also missed about the 31st of August: — Swallows, April 10th and 20th; chiffchaff, 15th; redstart, 16th; common sandpiper, 17th; sand martin, 12th; yellow wagtail, 21st; whitethroat, 23rd; blackcap, 28th; martin, 28th;—all at Paignton. Swift, May 8th, at Teignmouth.—*Cecil Smith; Lydiard House, Taunton, October* 10, 1863.

Fascination of Birds by Light.—Some interesting remarks upon this subject (Zool. 8630) led me to make inquiries of the keepers of the North Unst ("Flugga") lighthouse, who now inform me that after dark nights they constantly find birds, either dead or disabled, lying outside the lantern. The various species of sea-fowl which inhabit the neighbouring rocks, and which retire to rest before darkness has fairly set in, seem to escape the danger; it is chiefly the migratory kinds, and those whose habit it is to fly by night, which suffer. Among these I recognize from description a species of owl (shorteared?), a black-and-white wagtail, the snow bunting, the crossbill, the snipe, the wild duck, the storm petrel. The latter occurs chiefly in spring and autumn, very seldom at other times, and occasionally in such numbers that upwards of a score have been picked up at one time by the men, who complain loudly of the trouble caused by the birds vomiting oil upon the glass as soon as they strike against it. One which, having been only slightly injured, was kept alive for some days, at last managed to escape; but as it descended towards the sea a great blackbacked gull dashed after it, and, seizing the poor little bird in its bill, disappeared with it in the cliff beneath. This was witnessed by two persons whose word may be relied upon. Golden plovers have now become very numerous, and are constantly upon the wing during the early part of the night. One dark night in the beginning of this month, as I was carrying a lantern over the hills near Burrafirth, several of these birds flew close past, and once a whole flock came sweeping towards me, and, separating on either side, passed almost within arm's reach, their shrill cries, rushing wings, and the glancing white of their plumage, producing an effect not to be described, and utterly bewildering at the moment. I have no doubt that some would have struck against the lantern, had it not been so constructed that the light, falling upon my figure behind it, warned them in time. In the hope of gaining some useful information as to the movements of some of our migratory birds, I have obtained from the lightkeepers a promise to send all future captures to me, at the same time carefully noting the side of the lantern upon which they fall. Should the result prove interesting it will, with the permission of the editor, be duly recorded in these pages. — *Henry L. Saxby; Baltasound, Shetland, September* 26, 1863.

Nesting and Eggs of various Birds.—I have had two nests of kestrels' eggs brought in during the past season, the one containing five, the other six eggs. In the latter nest five of the eggs were of the usual size and shape, namely, broadly oval, 2¼ inches long by 2⅛ broad, and weighed barely three-quarters of an ounce. The sixth egg was very small; I think I never met with a smaller kestrel's; it weighed a little less than half an ounce, and was barely 2 inches long by 1¾ broad; it was very richly marked, quite clotted with colour, which seemed supplied in great profusion. The smaller egg of the nest of five was very pale and faintly coloured. In a nest of sparrowhawk's eggs that I received was one of a pale blue-green, with only one small spot of light yellow-brown. That useful bird the barn owl still breeds with us in some numbers, as a rule in hollow trees, but I have known several instances of their nesting in the holes of chalk-pits and cliffs, and I have known them breed in pigeon-colts on two or three occasions. The longeared owl breeds here sparingly. I took a nest in a small fir-plantation; it contained two young, apparently about half-grown, and two eggs, which I now have in my cabinet. The nest, I suppose, originally belonged to the crow, but the owls had quite flattened it and spoiled its beauty; it was so flat that the wonder was the eggs did not roll out. That brilliant little denizen of the Thames side, the kingfisher, is by no means rare with us, and may frequently be seen darting along, like a flying jewel, as the sun gleams on its azure blue coat. I have repeatedly taken their nest; but nest it can hardly be styled, for I never found anything more than a few fish-bones and scales mixed up with the loose mould on the floor of their burrow. Considering the size of the egg, they lay a large number; I have frequently taken seven, and in one instance I took eight, eggs. It must be a busy time for the old birds to keep so many mouths supplied. It is an easy matter to discover their nesting-place, for if a burrow is tenanted by kingfishers the nestings show very plainly at the entrance-hole, where they drain out. They oftentimes choose very curious situations for nesting; I knew of a pair last season which bred in a hole in a gravel-pit in the middle of a thick plantation of firs, and quite a mile or more from the water. The first batch of eggs were taken, when they laid a second, and succeeded in rearing and bringing off their young. I once found the eggs of this species in a burrow on the top of a high hill, nearly if not quite a mile from the water. Another pair frequented a small pond in a garden in the town, and doubtless meant to breed, but they were continually disturbed. I have noticed that the second layings of eggs are rarely so large or so many in number as the first.—*Charles Stubbs; Henley-on-Thames, Oxon, September* 11, 1863.

Barn Owls four in a Nest.—A brood of barn owls was discovered in an outhouse on the farm of Treaton, near here. There were four of them, all the same size and age. I think it is very unusual to find so many in a nest.—*Robert H. Leven; Kenaway Burns, Windygates, September*, 1863.

Note on the Shorteared Owl.—The shorteared owl, which is an annual visitant to our fens from October until spring, has allowed me every facility for making an examination of a great number of specimens, alive and dead. A minute scrutiny of their outward appearance has led to my discovering the mark of external sexual distinction, that feature being the very observable rich dark colouring of the female, and thicker streaks of black pervading the entire plumage; while the male is very much lighter, and only faintly marked (upon the breast particularly), and less rich in general colour; the face of the male and the circle of feathers round the eyes are also much lighter. Never having seen this species properly delineated, I have been induced to forward two sketches for Mr. Newman's inspection, and I think no one can point to an instance of the quill-feathers being depicted as represented in my figures. They are, in every representation I have seen, made to appear with the second quills drawn up or level, which is a sad mistake, as this bird never reposes with them in that position, and, as far as my knowledge goes, at no time perches upon a tree, which it is nearly always represented as doing. Both by day and night the shorteared owl takes its food and roosts upon the ground; a turnip-field is a very favourite resort. I have inquired of numerous friends and correspondents whether they have seen this owl perching, and I am pleased to say that all have confirmed my experience in this matter.—*S. P. Saville; Dover House, Cambridge.*

Pied Flycatcher near Land's End.—This little flycatcher has very seldom made its appearance in our southern or western counties, and seems to have a very limited range even in the district where it is most common. In common with others of our soft-billed migrants, several of which only visit our groves very sparingly in the Land's End district during the summer season, such as the common redstart, lesser whitethroat, reed warbler, wood wren, &c., the bird now under notice is found sometimes in the autumnal migration at the Scilly Isles; and I now record the occurrence of one, apparently a bird of the year, during the past week, at Scilly, and agreeing in plumage with one I have in my collection from the same locality. From little or no acquaintance with this species I am induced to suggest whether the black plumage yields in the autumn to the more leaden tone of colour of such as I have observed from Scilly. I may add here that in no instance have I seen or heard of the nightingale occurring in Scilly or in any part of Cornwall. — *Edward Hearle Rodd; October*, 1863.

Golden Oriole in the Isle of Wight. — A magnificent male specimen of the golden oriole was shot here, by a labouring man, on the 10th of September. I purchased the bird, and have it still in my possession.—*H. Rogers; Freshwater, Isle of Wight.*

Scarcity of Redstarts. — I have noticed a great difference in the number of these birds, particularly within the last thirty years; but for this I cannot account, except from the great increase of population, and the consequent overplus of mischievous boys. These birds generally build near the habitations of man; but they are certainly not taken by birdcatchers for their song.—*H. W. Newman; Hillside, Cheltenham, October* 5, 1863.

A Word for the Stonechat. — An opportunity was lately afforded me of watching the prodigious quantity of insects (particularly larvæ) this species devours in the space of even a few seconds. I have recently been staying in a neighbourhood much frequented by the stonechat, and I cannot express the delight I experienced to sit and watch a solitary bird alight upon a cabbage, and in the most energetic manner possible take the larvæ off the leaves with incredible alacrity, then dart at some unlucky fly. I observed the stonechat diligently pursuing his captures from day's dawn to the close of night's sable curtain. I hope those residing in localities frequented by this bird will, from these facts, afford them protection.—*S. P. Saville.*

The Dartford Warbler on the Banks of the Thames at Woolwich. — When out shooting on October 1st, I saw, hopping about in some blackthorn-bushes on the banks of the river, a bird, which, from its small size and mouse-like movements, appeared strange to me. It kept so near the ground that it was with difficulty I could get a shot, which only wounded it. I scrambled through the bushes as quickly as possible, but only in time to see it run into a rat's hole. After a fruitless attempt to rake it out with my ramrod, I left the spot; but on returning some time afterwards to the same bushes I found it fluttering about in them, and, finding I could not catch it, fired a second time, fortunately killing it. On examining the bird I found it to be a fine male specimen of the Dartford warbler. In the stomach I found some small grasshoppers and the wing-case of a small green beetle. When I fired the first time it uttered a cry somewhat similar to the squeak of a mouse.—*H. Whitely, jun.; Woolwich, October* 20, 1863.

Gray Wagtail (Motacilla boarula) *an Autumn Visitor to Shetland.*—Several of this species have lately arrived in Unst, and may now be seen actively searching for food upon various parts of the coast. The stomach of one of these birds, shot by me to-day, contained small marine univalves, a few minute fragments of sea-weeds, some grains of sand, and some flies. It is perhaps chiefly in order to obtain the latter that the bird frequents lee places upon the shore which are fully exposed to the warmth of the sun. In pursuit of these flies it displays great activity, running swiftly and catching them as they skim above the ground, and sometimes, though very seldom, rising upon the wing to take one which would otherwise be out of reach. I have so frequently had occasion to note the occurrence of the gray wagtail during the months of August and September that it may now be considered as a regular autumn visitor. It usually appears after a stiff breeze from S. or S.W.; but whether this drives it from the south, or detains it upon its way from the north, yet remains to be proved. The latter can scarcely be the case, for Yarrell observes that "this species has no very high northern range, never appearing in Denmark, Norway or Sweden;" nor is it included in Mr. Newton's 'Catalogue of the Birds of Iceland.' — *Henry L. Saxby; Baltasound, Shetland, September* 17, 1863.

Notes on the Rosecoloured Pastor. By HENRY L. SAXBY, M.D.

A YOUNG bird of this species made its appearance here last week, and was shot by me soon afterwards. As it flew past with some starlings its light colour immediately attracted my attention; but never having previously seen one in first year's plumage, I was unable to satisfy myself as to its species without a closer inspection. The flock alighted among a number of cows, and then, by creeping behind a loosely-built wall, I approached sufficiently near to obtain a good view of the then unknown bird, and to make some notes as to its general appearance and habits, which are usually described as precisely resembling those of the starling; but in this case some slight points of difference most certainly existed. Several times the flock was disturbed, and flew off to other feeding-grounds; and the pastor, although apparently desirous of keeping up with it, was not unfrequently left some distance behind; and even upon the ground it sometimes wandered far away: when the starlings made any sudden stop or wheel it became widely separated from them; but, like them, it usually alighted abruptly, although it occasionally circled a little previously. It approached the cows quite fearlessly, and twice it darted rapidly forward and appeared to seize an insect upon the foot of one of them. I think that it procured all of its food either upon or above the surface of the ground; for during the whole time of my presence, a period of about three hours, I never observed it boring with its bill, although its companions were constantly doing so, the hour being early, and the ground consequently still soft. When, by an incautious movement, I either occasioned a slight noise or exposed myself to view, the main body of the starlings, obedient to the warning cry of the most vigilant, immediately paused, looked up in their peculiar manner, and took flight; and the pastor, when it happened to witness any indications of alarm, at once took the hint and made off with the rest; but the cry alone was evidently lost upon it, and met with not the slightest attention. Upon the ground the pastor was certainly well able to outstrip its companions, and, like them, progressed by means of a series of rapid steps; but it differed chiefly in its lighter and less stately movements, and by carrying the body more horizontally; indeed I fancied that in general appearance it more closely resembled a blackbird. It was rather fond of standing upon a stone or a slight eminence whenever an opportunity offered, and altogether its peculiar motions, and apparently careless search for food, presented a strong contrast to the sober, business-like demeanour of the starlings. Its note was a little like that of a starling, and less harsh. At last, seeing that the flock was becoming more and more difficult to approach, and having very little more time at my disposal, I risked a long shot, whereupon the starlings made for the open fields, but the pastor, with difficulty fluttering across the garden wall, fell upon the ground within forty yards of the very tree from which I shot my first specimen of the bird, in August, 1860. The present one proved to be a male, only a few months' old; the stomach contained some small beetles, a few worms, and a considerable number of small gnats.

A bird so unattractive in appearance as this species, in the plumage of its first autumn, might very easily be overlooked, and I have no doubt that in this state it has more than once been thrown aside, under the supposition that it was a light-coloured starling or a young thrush; nor is it until a side-by-side comparison is made that an observer (at least one equally inexperienced with myself) becomes fully aware of the difference. I have just shot some first year's starlings, and remark that in them the feathers upon the front of the head extend no further than the posterior margin of the nostril, while in both specimens of the rosecoloured pastor the feathers extend some distance further, partly occupying the depression above the nostril: this distinction seems to hold good at all ages. The following description of the rosecoloured pastor, in the plumage of its first autumn, was taken before the skin was removed from the specimen.

Whole length................................	8¾ inches.
Wing from carpal joint to tip	5½ „
Bill (measured along upper ridge) ...	8½-twelfths.
Tarsus	1 inch.
Middle toe and its claw	1¼ „

Tip of upper mandible dusky brown, the remainder of the bill yellow. Eye reddish brown. Forehead and top of head light dingy brown, each feather centred with darker. Cheeks, ear-coverts, back and scapulars rather paler than top of head; upon the lore a few small, scattered, black feathers. Tail-feathers light brown, with still paler edges. The whole of the wing-feathers, including both sets of coverts, dingy brown, edged with soiled white. Chin and throat white; breast and front of neck white, tinged with brown, each feather darker in the centre. Abdomen white: under tail-coverts white, mottled with several shades of light brown. Tarsi and feet light reddish brown, paler and more slender in form than those of the starling. Head without any appearance of a crest.

The specimen killed upon the 10th of August (a month earlier) is black and salmon-colour, like an adult, only the tints are less pure, the crest is not so conspicuous, and some brown feathers among the scapulars seem to be the remains of the old dress, the bird not having completed moulting. From the above facts we may calculate that the moult takes place about the end of July or the beginning of August, and also gain ample evidence, if it were yet wanting, that the perfect plumage of the adult is not attained before the third autumn. The measurements of both of the above specimens are precisely similar, and also agree with those of an adult.

HENRY L. SAXBY.

Baltasound, Shetland,
September 12, 1863.

A Note on Pipits.—I have noted with much interest how birds will take advantage of any circumstance which may conduce to their comfort in the way of procuring food or shelter: as examples of this, during the herring-fishing season in Loch Fyne, in the morning, after the nets have been "haled," pipits alight in many of the boats, and commence searching the nets for any marine animalculæ which may be adhering thereto, not being interfered with in their pursuit by the fishermen, who have facetiously dubbed them with the respectful title of "skipper." These pipits are generally the shore pipit (*Anthus obscurus*), with an occasional meadow pipit (*A. pratensis*). Along the west coast of Scotland are many wooden wharves for the accommodation of steamboats; these are largely taken advantage of by numerous pipits, wagtails, &c., for nightly shelter, the birds evidently considering them admirably adapted for the purpose of dormitories.—*John Kerr; Greenock.*—'*Field.*'

Notes and Queries on the Cuckoo.— Naturalists or "unnaturalists," we have all been bred in the belief that this favourite visitant invariably deposits a single egg in the nest of some other bird; and I note that our most recent ornithological authorities retain the dogma, for which I presume the notorious voracity of the young bird is thought to offer abundant reason. My observations during the late season, limited as they have been, have yet aroused suspicion as to the uniformity mentioned, and they are subjoined to promote discussion. Early in June, visiting the Formby shore, with a view of inspecting the breeding-places of some of our water-fowl, I unexpectedly chanced upon a titlark's nest containing three eggs, only one of which belonged to the builders of the little domicile; the others were intrusions, and certainly eggs of the cuckoo, although one is rounder and of a much lighter ground colour than usual, its fellow being of average size, shape and colour. Revisiting the neighbourhood a fortnight later, above a mile from any house, and about that distance from the site of the first, I found a second nest of the same bird, containing, as before, a pair of cuckoo's eggs, the legitimate occupants in this case numbering three. Again did the same features present themselves, one proving of a much lighter colour than the other. Inquiry among the young rustics substantiated the fact of duplicate cuckoo's eggs in one nest being no unfrequent occurrence, and one youth assured me of his having once found three cuckoo's eggs in one nest. I may here remark that, although in Yorkshire and more southerly counties the nest of the hedgesparrow, white wagtail, skylark, &c., is occasionally used, I never knew of any other than the titlark's in this district. In few localities probably does the meadow pipit abound more than in this, and throughout the island its nest is the one universally haunted by the cuckoo. Eggs of an unusually light ground colour, or with less spots or blotches of colour (as occurs with hawks, blackbirds, missel thrushes, &c.), I have generally regarded as those of young birds, often as the first laid; and this belief obtains among all country people, doubtlessly grounded on fact. Upon this assumption the two eggs in each of the above cases may be apportioned to one bird, a young one. In reference to the voracity of the fledglings, is it not more likely that a young, inexperienced cuckoo would lay two eggs in a nest than an older bird? Assuredly there was no lack of titlark's nests in the place; and, regarded in every light, it seems to me in the highest degree improbable that in so open a situation different cuckoos would deposit an egg in the same nest. Have any of your readers met with duplicate eggs of the cuckoo in one nest? Have the eggs of this bird been found in this district in any other nests than those of the titlark (*Anthus pratensis*)? How many eggs will an old cuckoo lay in a season? — *H. Ecroyd Smith; Aldbro' House, Egremont.* — '*Naturalists'-Scrap-Book*,' p. 107.

Occurrence of the Grass Parrakeet (Melopsittacus undulatus) *at Westerdale, in Cleveland.*— Receiving information, a week since, of the circumstance that two birds of a most unusual description had been shot at Westerdale in the course of the past summer, I took an early opportunity of going over to see them. They proved to be a male and female of the species named above, and in remarkably fine and perfect plumage. It appeared that they had been observed some days before they were shot, and as far as I could collect they must have been living at least twelve or fifteen days in a state of nature about the village of Westerdale, besides the indefinite time they must have spent in winging their way thither from the place at which they had made their escape from confinement. The man who shot them told me they "wrought despertly about the roads, making maest o' their living about them," that their flight reminded him of that of the wagtail, and their note of the chirpings of the sparrow. The same remote village, situated in the very midst of the moorlands rolling and spreading for miles in every direction, has seen the arrival, during the early autumn, of a carrier-pigeon, with, I believe, a Dutch legend upon its wing-feathers. Though I have made the inquiry, I cannot hear of any aviary, within a circuit of from fifteen to twenty miles, from which the parrakeets could have escaped; and the perfect state of plumage precludes the idea that they had been confined in the strait quarters of a small cage.—*J. C. Atkinson.*

Slate-coloured Variety of the Chimney Swallow.— A week or two since I had sent for my inspection the most beautiful slate-coloured variety of this species I ever saw. It was of an uniform slate-gray colour, slightly clouded, and very indistinctly barred with a slightly darker hue. The under part of the throat faintly marked with very light chesnut; the ordinary bar of spot-like white markings was quite visible if held in certain lights. The eyes were light hazel; tarsus whitish brown; beak of the latter colour. The whole under portions of its plumage were of a light dirty white. I am aware that white and nearly white varieties of the two cognate species are not of unfrequent occurrence; but these are so frequently designated by the ordinary cognomen "Altin's swallow" that I deemed the note of a slate-coloured Hirundo rustica would not prove uninteresting. It was shot at Stretham, Cambridgeshire, one day last month. —*S. P. Saville; Dover House, Cambridge, October,* 1863.

A Swallow turning Pirate. — I was very much amused, a few days since, while watching one of my little favourites, the Motacilla campestris, which was busily engaged seeking for its food upon the grass opposite my residence. A swallow which chanced to swoop leisurely past darted and caught up what I imagined to be a larva. The wagtail in the most plucky manner darted after the impudent offender, and chased him for at least a minute or two. Whether my little favourite succeeded in recapturing his dainty morsel I was unable to determine.—*Id.*

Scarcity of Swallows. — The scarcity of swallows has been alluded to by several writers in the 'Zoologist.' As far as the martins are concerned it may be accounted for in this way: — Since I resided where I am at present I have encouraged the martins to build a few nests round my upper windows; but the moment these birds had finished their nests the sparrows took possession, and but for my assistance my friends the martins never could have hatched a single brood: the pertinacity with which those lazy, impudent birds, the sparrows, endeavoured to keep possession of their ready-made houses was remarkable; when one was killed, in a couple of days another helpmate made his or her appearance to make up the pair of robbers; and this continued from about the 5th or 6th of May until the first week in August, and during the whole of this time the martins were annoyed, even after they had laid their eggs and during incubation. The finishing of the martins' nests each time they built was carefully watched by the sparrows, which took possession immediately after completion. In each year since May, 1860, I have destroyed about five couples of sparrows. No wonder that the martins are diminished in number, when in thousands of houses they have no chance of having a brood until August or September, when their intruders have finished their two or three hatches of young sparrows, and have taken flight for the wheat-fields. What will the small-bird preservers say to this, my true and unvarnished tale! The common chimney swallow is not quite so subject to the intrusion above mentioned, as most of them build their nests several feet under the entrance of a chimney-top, in the summer, where no fires are kept; but many of their young ones are lost, in their first attempt to rise in a straight direction, by falling to the bottom of the chimneys. I have during my life extricated some when they have been heard fluttering near the fire-places in my bed-rooms. Those wonderful birds the swifts are not subject to these trespasses, but sometimes they are destroyed by rats or mice. The swallow tribe is venerated by most people who delight in ornithological Natural History; they are the harbingers of spring, and arrive, weather permitting, at the same time each year. The wonderful duration of their flight and their beautiful gyrations have excited the admiration, and even the adoration, of some of the heathen nations; and the manner in which their nests are preserved, almost within reach of the hand of man, is a proof that they are respected more than the generality of other birds in Great Britain.—*H. W. Newman; Hillside, Cheltenham, October* 5, 1863.

White Swallow (Hirundo rustica) *near Beverley.* — A white specimen of Hirundo rustica has been observed by several persons, during the last few days, flying about Hull Bridge, on the river Hull, Beverley. It was seen by my friend Mr. R. Stephenson, of the Hull-Bridge House; also by Mr. H. Hewitson, of Beverley; also by my own servant, and several other witnesses, who all agree as to its species, as indicated both by the longer tail and its companions, which were true "swallows," in contradistinction to "martins." This bird has since been shot, but was so completely shattered that the man who shot it unfortunately threw it away. — *W. W. Boulton; Beverley, September* 24, 1863.

Late Stay of Swifts. — While walking with Mr. Fryer, in his garden at Chatteris, our attention was suddenly drawn to two swifts, which, in company with about a dozen swallows, were making their way overhead. They were flying directly from west to east, and were apparently "hawking" *en route.* This, I believe, is very late (October 14th) for swifts to remain with us. Will you kindly allow me, now I am about it, to inform collectors and others that I no longer deal in insects, birds' eggs, &c., or collect for sale?—*W. Farren; 10, Rose Crescent, Cambridge, October* 13, 1863.

Late Stay of Swifts. — I have observed the very unusual circumstance of swifts not having migrated till about a month after their average time of doing so. For about twenty years I have been interested in observing the swallow tribe, and especially the swift. This year, after the middle of August, of course I expected any day to notice they had taken their departure; but September came and still they were with us, in number about thirty. On the 10th instant the majority left us, and the remainder on the 16th or 17th. I cannot account for their departure being delayed so late. I do not believe their nests were disturbed at the usual breeding time, as there are several colonies of them in different parts of the town, and generally in very inaccessible places. Nor has the weather, from the 20th of August to the present time, been remarkably fine and warm; on the contrary, I should say it has been colder than the average of seasons. As Yarrell mentions, in his 'History of British Birds,' that one swift was seen by Mr. R. B. Hale, M.P., of Alderley, on the 9th of September, 1839, it may be worth recording the very remarkable circumstance of thirty or upwards remaining till the 10th of September, 1863. — *Joshua Whiting; Hitchin, September* 17, 1863.

[I have several notes to the same purport. The swifts have, without doubt, stayed unusually late this year, and other Hirundines are following the example; swallows and martins were abundant near London yesterday (9th of October), and I saw one sand martin over the Surrey canal amidst a host of its congeners.—*Edward Newman.*]

Hoopoe in the Isle of Wight.—I have a beautiful specimen of the hoopoe, shot near Alum Bay yesterday; it is in a very handsome state of plumage; it was shot by a man of the name of Downor. This man shot two others in 1861, which I also purchased of him.—*H. Rogers; Freshwater, Isle of Wight, October* 9, 1863.

Rock Dove in the Isle of Wight. — Two large flocks of rock doves were seen here on the 12th of May; it was a very rough and stormy day. Several hundreds of the above birds passed within twenty yards of me, flying in a south-westerly direction. I had no doubt of the species, as I could easily distinguish the colours. They alighted on some trees, and, being noticed by several persons, many of them were shot, and some of them were brought to me for preservation. I think it is unusual for so many to be seen together. It was blowing a gale from the north-east.—*H. Rogers; Freshwater, Isle of Wight.*

[It is rather curious that the rock dove should settle on trees. I took great interest in the movements of these birds both in Scotland and Ireland, and never saw one even venture into tree districts; they confined their movements very much to the sea-cliffs, settling on ledges, billing and cooing, and pushing one another off and then running into holes.—*Edward Newman.*]

Pallas' Sand Grouse in Suffolk and Norfolk. — I had intended, in the present number of the 'Zoologist,' to have contributed a second paper on the sand grouse in this district, bringing my previous notes down to the present date. My time has, been so much occupied of late that I must postpone for the present any lengthened communication. Your readers will probably be interested in knowing that two or three other specimens were killed in Norfolk and Suffolk in July, subsequent to my last notice; that small parties were observed throughout August and September in the Yarmouth and Lynn districts, where our extensive sand-hills have from their first arrival afforded great attractions; and that three male birds were shot in the neighbourhood of Lynn as late as the first week in October. These birds I examined in the flesh. They were in high condition; the crops filled with small seeds similar to those before described; the plumage far brighter in tint than in any of the earlier specimens, the autumn moult being quite complete, with the exception of the first primary quills being as yet no longer than the second, and the tail-feathers but partly grown. That these were adult males there could be no doubt; but the difference in the size of the testes, compared with those previously examined, was very remarkable, and from their appearance might indicate that there was no reason why the females should not have laid during the last few months, although after the most careful inquiries I cannot ascertain that any indications of their nesting with us have been anywhere observed. Mr. Newton has received authentic information, however, of their having bred this summer in Denmark.—*H. Stevenson; Norwich, October* 22.

Pallas' Sand Grouse in China.—Your readers will be both surprised and delighted to hear of the abundant occurrence of this species, during winter, about the plains between Pekin and Tientsin. Flocks of hundreds constantly pass over with a very swift flight, not unlike that of the golden plover, for which we at first mistook them. The market at Tientsin was literally glutted with them, and you could purchase them for a mere nothing. The natives called them sha-chee, or sand-fowl, and told me they were mostly caught in clap-nets. After a fall of snow their capture was greatest, for where the net was laid the ground was cleared, and strewed with small green beans. The cleared patch was almost sure to catch the eye of the passing flocks, who would descend and crowd into the snare. It only remained then for the fowler, hidden at a distance, to jerk the strings, and in his haul he would not unfrequently take the whole flock. Numbers, however, were shot with matchlocks. When on the ground they were rather shy and difficult of approach; but when on the wing they would sometimes dart within a few yards of you. They possess rather a melodious chuckle, the only note that I have heard them utter. The natives say that during the summer they are found abundantly in the great plains of Tartary beyond the Great Wall, where they breed in the sand.—*R. Swinhoe, in 'Ibis.'*

Quail shot near Beverley. — About the middle of last month (September) a very well-marked male specimen of the quail was shot by Mr. Harland, farmer, of Holme, near Beverley, upon his own farm. I saw it in the flesh at Mr. R. Richardson's, bird-stuffer, of Beverley, into whose able hands it has been entrusted for preservation. The last quails seen or shot near Beverley, to my knowledge, were a pair, male and female, shot by Mr. Kemp, gamekeeper, near Beverley, five years ago, and now in my collection.—*W. W. Boulton; Beverley, October* 1, 1863.

Occurrence of Temminck's Stint at Scilly. — This little Tringa has made its autumnal appearance at the Scilly Isles, and I dare say may now be pretty generally found in its winter plumage in our estuaries.—*Edward Hearle Rodd; Penzance, September* 10, 1863.

The Spotted Redshank (Totanus fuscus) *in Cornwall.*—A specimen of a young bird of the year of this elegant sandpiper was killed near St. Austell last week; others I observe have been obtained in different English counties this autumn, and I heard of one having been seen at Scilly this week. The visits of this species are rare, and at long, or rather uncertain, intervals in this county, and therefore, as an interesting species, their occurrence perhaps deserves a simple record.—*Id.*

Ruff (Machetes pugnax) *shot near Beverley.* — A very beautiful specimen of the ruff was brought to me this day by Mrs. W. Simpson, of Aike, near Beverley. It was shot last evening (September 23), by her husband, Wm. Simpson, on the Barmston Drain, close to the village of Aike. The bird was alone, and on dissection has proved to be a male without the frill. It is about ten or twelve years since a specimen of the ruff has been captured or seen in this highly-cultivated district, to my knowledge. Both specimens are now in my own collection.—*W. W. Boulton; September* 24.

Reeves in the Isle of Wight.—On the 18th of May two of the above birds were shot here in a very interesting state of plumage, just changing from the winter to the summer dress. On Saturday, the 3rd of October, I obtained two others; these are very different from those I obtained in May, having lost all the summer plumage, except a tinge of yellowish gray on the breast. These birds are a new and interesting addition to our Isle-of-Wight Avifauna.—*H. Rogers; Freshwater, Isle of Wight, October* 9.

The Curlew Sandpiper near Yarmouth.—In your notices, at different times, of the capture of rare birds, I have only once or twice observed the occurrence of the curlew sandpiper. As I am inclined to believe that this is rather an uncommon, or at all events a local species, a note of two specimens obtained lately at Yarmouth, may perhaps be interesting. On the last day of September I was hunting on Breydon Water, Yarmouth, when I observed a solitary sandpiper feeding with some gulls upon a mud-flat. The gulls all took wing long before I was within shot, but the sandpiper allowed me to approach within forty yards before rising, when I shot it. It uttered two sharp notes, not unlike a dunlin, for which bird I at first mistook it; but the white tail-coverts and somewhat longer wings distinguished it at once from that species. On picking it up I found it to be an old bird in an intermediate state of plumage, having just a tinge of chesnut on the breast, and still retaining the rich markings on the back peculiar to the summer plumage. It proved afterwards, on dissection, to be a male, and I found the stomach filled with remains of small worms, coleopterous insects, and a few minute pebbles. The second specimen, a handsome male bird in nearly full summer plumage, I purchased the following day from a man who killed it, at the same place, in May last. In this state of plumage I fancy it must be rare. — *J. Edmund Harting; Kingsbury, Middlesex, October* 7, 1863.

The Rednecked Phalarope near Chichester.—On the 25th September a rednecked phalarope was shot while swimming on a pond near here. It appears to be a bird of the year, and when compared with a gray phalarope received the same day from Sidlesham the difference was very striking. Three or four were seen about the pond a day or two before, and were mistaken for sandpipers. — *W. Jeffery, jun.; Ratham, Chichester, October* 6, 1863.

Gray Phalarope near Greenock. — I beg to record the capture, in this neighbourhood, on the 6th instant, of the gray phalarope.—*John Kerr;* 9, *West Steward Street, Greenock, October* 9, 1863.

A List of Waders that have occurred at Kingsbury Reservoir during the Summer of 1863. By J. EDMUND HARTING, Esq.

AMONGST our annual summer visitants are to be included many of the Grallatores or waders, which arrive here in May and August, on their migration to and from their breeding-places in the North.

This year we have been visited by no less than ten species, in the enumeration of which I have adopted the order observed in Mr. Yarrell's admirable system.

1. Ringed Plover (*Charadrius hiaticula*). Appeared for the first time in May, in twos and threes, and remained about our Reservoir some days, during which time several were shot. After an absence of about seven weeks this species reappeared in small flocks of from eight to twenty, and young birds as well as old were then to be seen. A young male which I shot towards the end of July accorded well with the description given in Yarrell's 'British Birds,' having the beak almost entirely black; no black band over the white on the forehead; the lore, ear-coverts, and collar round the lower part of the neck only, dusky; and the legs and toes pale yellow. The stomachs of all that I have examined contained either the remains of small beetles and worms, or a mass of semi-digested vegetable matter, sometimes both, and invariably some small particles of sand or gravel. Yarrell says that the ringed plovers "pair and go to nest early in the season," and mentions the fact of Mr. Salmon's having found eggs by the 30th of March. I would observe that only old birds are to be found here in May, apparently, as I take it, on the way to their breeding-grounds; and we do not see the young until the end of July or beginning of August. The earliest arrival that I have noted down for this species is May 3rd, and the latest stay on their return in autumn August 28th.

2. Curlew (*Numenius arquata*). A solitary specimen appeared at the Reservoir here on August 3rd. This is not the first time of its occurrence, but it is an uncertain visitant, and certainly not common.

3. Redshank (*Totanus calidris*). I have three of these birds in my own collection, all of which were obtained at our Reservoir this year. One of them, an adult male, in fine plumage, was shot in May by Mr. F. Bond, who kindly presented it to me; the other two, which are male and female birds of the year, were killed on the 17th of August. These latter have not the rich markings on the breast peculiar to the adult bird in summer plumage, and the colour of the legs and base of bill is much lighter. The stomach of one which I examined contained vegetable remains only, with a few pebbles.

4. Green Sandpiper (*T. ochropus*). A female of this species was killed here on the last day of April, by Mr. F. Bond, and upon dissection we found rudiments of eggs in the ovary. On August 3rd several of these birds were observed, and two or three were shot. Since then I have seen others. This species is a regular summer visitant.

5. Wood Sandpiper (*T. glareola*). On August 4th, while walking round the Reservoir in company with my friend, Mr. Bond, we saw a wood sandpiper which had just been killed there. The person who shot it told us that he had wounded another that was with it, but not having winged it he had failed to find it. He had no idea of the species, and called them "greenshanks," observing that he had often killed such birds before. But no doubt he would call the green sandpiper a "greenshank," and common and rare birds would be all "greenshanks" to him. In this case a real wood sandpiper was to be consigned to the spit with as little remorse as if it had been a sparrow. It is to be deplored that rare birds should be killed and eaten in this way, and, as is generally the case, without any record of their occurrence or capture.

6. Common Sandpiper (*T. hypoleucos*). This bird does not belie its name, being the commonest species of sandpiper that visits us, generally arriving about the first week in May, and after leaving us for June and July—to breed, as I believe, further north—it returns again at the end of July or beginning of August, and remains until the middle of September. Both young and old birds are then to be found. I obtained a full-grown young male on September 7th, which externally differed hardly at all from an old bird. This and the green sandpiper always remain here later than any other species, and, unlike the ringed plover, dunlin and some others, they do not stay so

much at the broad water of the Reservoir, but are to be found singly or in twos and threes, all along the course of our brooks. The stomachs of several specimens that I examined contained either a mass of semi-digested beetles and aquatic insects, or vegetable matter only; and, as in the case of the ringed plover, there were always several minute pebbles or particles of sand.

7. Greenshank (*T. glottis*). Seven of these birds appeared on the 1st of August, and on the 3rd of that month three were seen and one shot. The greenshank is an uncommon visitant, although this is not the first time of its occurrence here. The same may be said of the wood sandpiper, little stint, and other of our rarer waders.

8. Little Stint (*T. minuta*). Early in May, Mr. Bond saw a pair of these little birds at the Reservoir. They only allowed him one chance of shooting them, but his gun then unfortunately missed fire. A fine specimen of the little stint, now in my possession, was killed here on the 9th instant. Another was seen at the same time, but escaped.

9. Temminck's Stint (*T. Temminckii*). A few small stints appeared here during the first week in August, and one was shot. Unfortunately I was not able to see it, so that I am unable to say for certain whether it was T. Temminckii or T. minuta. But Mr. Bond, judging from the time of year, is inclined to refer it to T. Temminckii. I have therefore recorded the capture of a small stint under this name.

10. Dunlin Sandpiper (*T. variabilis*). I have a pair of these birds, in fine plumage, now in my collection, that were killed here on April 7th. This species is one of the earliest to arrive, and, after leaving us, like the others, for six or seven weeks, returns again in August. The plumage, however, is then very different. It is much duller, the rich reddish brown tint of the upper parts becoming dull grayish brown, and the black upon the breast entirely disappearing.

In this list of our Grallatores I have only mentioned those species that have occurred here this summer; otherwise I might have added the ruff, the blacktailed godwit, and other rarities that have previously been killed here. It will be observed also that I have not included the lapwing, which remains with us to breed; the heron, which is to be found here at all seasons; the landrail, which generally arrives the first week of May, and leaves us as soon as the hay is carried; the moorhen, which, like the heron, is to be found here all the year round; and the coot, of which species one or two examples generally occur every season. If we add these five to the above list of ten (which perhaps ought rather to be called *passing* summer visitants), we have, I think, a very fair proportion of wading birds for one neighbourhood, and a greater variety, I am inclined to believe, than many more favoured localities can boast of.

J. Edmund Harting.

Kingsbury, Middlesex,
September, 1863.

Notice of a singular Duck shot near Beverley.—The following account of the capture of this specimen I received from the lips of Mr. P. Martin, who shot it himself, and who is a man of the strictest integrity, and most respectable in his station. He says, "I was told that a strange duck had been seen in a drain, on a part of Cottingham Common, the property of Mr. Bayley, of Cottingham: on going to the place with my gun, I saw the duck for a moment, swimming about by herself: she immediately got up on seeing me, and flew away with great rapidity, and more after the fashion of a snipe than any other bird I know. I fired and killed it. This would be about the month of November, 1852. Finding the duck a very strange one, I enquired next day at the Hull Zoological Gardens, to ascertain whether any duck had made its escape, but no such bird was gone, nor could I ever learn of an escape of this duck in the Riding. Its wings were both perfect." The following is a description of the duck as it stands, with closed wings:—Sex uncertain; appearance would lead me to the conclusion that it had been a mature female. Length from tip of bill to end of tail, 21 inches. Bill: colour gone; length 2½ inches, gradually curving downwards from the base to the tip; lower mandible curved to correspond with the upper (which it does) in perfect proportion and symmetry; width, over widest part at upper mandible 1½ inch; margins of upper mandible overhang those of the lower, about one-eighth of an inch on either side, and are deeply pectinated; tooth, half an inch in length, and about three-eighths of an inch in breadth; colour gone. Iris (said to be a correct imitation of the original), dark reddish hazel. Head, crown, nape, throat and neck, both above, below and on the sides, a uniform creamy buff-colour, which is, if anything, a shade deeper on the crown and cheeks. Neck, remarkably slender for the size of the bird. Breast, pale creamy buff, gradually fading to a creamy white on the belly and sides. Back, same creamy white as on the breast. Wings have the second quill-feather the longest. Greater wing-coverts grayish brown, with a slightly rufous tinge, darker towards the outer edges, and which together form a somewhat triangular-shaped bar across the wings when closed, two inches in breadth in the widest part, which is above: each feather of these greater wing-coverts is pointed at the end, the outer web dark coloured, the inner web almost white, the shafts are white, and all of them are tipped with creamy white to the extent of five-eighths of an inch below, to one inch and a half above: "above" and "below," as used here, of course have reference to the present position of the bird, which is standing. Lesser wing-coverts pale creamy white, same as on belly and sides. Primaries pale creamy white on outer webs; shafts white; inner webs slightly tinged with gray towards the end, the rest creamy white. Secondaries creamy white. Tertiaries darker reddish buff, and some of the shorter ones rather mealy. Tail rich creamy buff above, paler below. Upper tail-coverts creamy buff. Under tail-coverts pale creamy white. Legs and toes, colour faded, apparently have been dark brownish orange, darkest on sides and back of tarsus. Claws pale in colour, but faded. Webs apparently orange, but faded. Hind toe more like that of the Fuligulinæ than of the true Anatinæ, but the membranous expansion is not so decided as in most of the pochards: resembling them, however, in this particular, as well as in one or two characters of bill (although in other features of this organ it is quite dissimilar), I should be inclined to class my specimen under the subfamily Fuligulinæ.—*W. W. Boulton; Beverley, Yorkshire.*

The Little Auk and Spotted Crake in Devonshire.—A little auk (*Alca alle*) was obtained at Plymouth a few days since, and a spotted crake (*Crex porzana*) near Tavistock. The latter bird was found dead on the line of railway, and doubtless met its death by flying against the telegraph wire.—*John Gatcombe; Plymouth, October* 15, 1863.

Razorbills and Guillemots in Devonshire.—The late severe gales have caused sad havoc among the razorbills and guillemots. For the last fortnight I have been visiting Seaton, a watering place on the coast of Devon, where I found numbers of them lying dead on the shore, washed up by the force of the waves. During a heavy sea these birds remind one of ships on a lee shore not able to "claw off," as the sailors say. At such times they may be seen riding on the immense waves close to the land; and it is really wonderful to observe the instinct and dexterity these poor birds evince to avoid being dashed on shore: intently watching the moment when the tall thin waves are about to break and roll over on the beach, they suddenly dive through them, and, appearing almost immediately on the other side, are enabled to maintain their position for hours together, until at length, becoming exhausted from want of food and continued exertion, they are obliged to succumb, and get rolled on shore almost lifeless at your feet, surviving the shock but a very short time.—*Id.*

The Deaf or Death-Adder of Australia.—The idea that snakes sting has long been laughed out of the minds of the most credulous, and he who would venture upon such an assertion at the present day must expect to meet with general discredit. Nevertheless, I am disposed to believe that there is a species in Australia, commonly called there the deaf or death-adder, that really does possess a sting at the tip of its tail, which, as well as its bite, is venomous and fatal to human life. Neither ought the idea that a creature possessing such a property is to be found in a country whose natural productions are so much at variance with those of the rest of the world be thought more improbable than the existence of the peculiar warning process at the tail of the rattle-snake would have appeared to the ancient naturalists. And before your readers reject it, let them remember that in ancient times a black swan was esteemed such a myth that the improbability of its existence became the subject of a proverb; and, even in modern days, had any one asserted some years ago that there was a mammal, a quadruped, which had the bill of a duck, such an idea would have been held quite as incredible as the one I now venture to advance, supported by my own personal observation. The aboriginal natives of Australia, as a general rule, subsist more upon the smaller mammalia and reptiles (as opossums, snakes, iguanas, &c.) than upon kangaroo or emu; for it requires quite a large party to hunt down either of the latter, and as the blacks generally travel in small parties or in families, they trust chiefly to what they can pick up on the road for a subsistence. Thus they can scarcely err with

with respect to the nature and qualities of those objects which come so immediately within the scope of their daily experience. Now, with respect to the deaf or death-adder, they affirm unanimously that its head and its tail are alike deadly, and they always exhibit a greater horror of its fatal powers than of any other venomous reptile. I once had an opportunity of almost verifying this asserted fact of the poisonous sting of the deaf-adder. I was travelling up the bush to Port Curtis with some bullock-drivers and their drays, and also with a small party of blacks, men, women and children, who had joined us for the sake of protection against the native tribes through whose country we were passing. We stopped and had some tea on the shingle in the dry bed of the river Boyne, when, as I was drinking mine, hearing a woman knocking two stones together (and feeling sure it was not Geology she was studying), I asked her what she was doing; she showed me the tip of a deaf-adder's tail which she had chopped off with a sharp flint, before cooking the body to eat. I asked her why she did it, and she said, "The tail of this fellow snake is carbon saucy (very poisonous), as bad as the head itself." I thought at first it could be but a fancy of the blacks, yet, upon consideration, I felt sure that they were not likely to be so greatly mistaken on such a subject, living amongst and feeding upon almost all the wild animals of the bush, as they do, from the time they are born till their death. I mentioned the names of other venomous snakes to her, as the black snake, the brown snake and whip snake, and asked her if they also had a "saucy fellow moondy (tail);" upon which, shaking her head, she uttered "Wacka-m-pa" ("no, no," or, "no indeed"), and rather smiled, as if she thought me a bit of a "new chum." She went, and, getting the bit of tail she had cut off on to a flat stone (not liking to touch it with her fingers even in its dissevered state), she brought it to me, and squeezing it between the stones, just as you might press the abdomen of a wasp, something not unlike a short bristle protruded from the pointed end, pointing to which she said, "There, that fellow killem you merry-makey (very soon)." I now regret I did not preserve the tail and bring it home, but having other things to attend to at the time I thought no more about it till some years after, when, on my return to England, I happened to mention the subject to my father-in-law, Mr. Dawson, of the Woodlands, who advised me to write a short account of it for the 'Zoologist.'—*H. M. Fuller; Niton, Isle of Wight.*

Crocodiles in the Nouaer Country, White Nile.

By JOHN PETHERICK, Esq.*

OUR boat was made fast under the village of Subchaya, and not far from it was the house of our conductor, Saleh Wallad Omar Abt il Samad—according to his own account a keen sportsman, who, disdaining agricultural pursuits, supported himself and family by the produce of his gun and spear. Six years ago, in company with three of his fellow villagers, he went to a small island called Geizet-il-Arab—a choice resort of crocodiles in search of their eggs. Going the round of the island, three crocodiles escaped into the river, and on closely investigating the spot a quantity of eggs were discovered in the sand. No sooner had they made off with their booty in the direction of a small tent which they had pitched than a crocodile, having watched their proceedings, rushed to the place of her deposit, and as rapidly returned to the river, and, swimming, followed them opposite to their destination, where until nightfall her eyes were perceptible above the water. Their repast that night was a rich one, but as soon as the last embers of their fire had died away the crocodile charged them furiously, repeating her attack several times during the night, and it was only by the frequent discharge of their firearms that they kept her from closing upon them. From that time the crocodile, hitherto harmless, became furious, and fell upon all the cattle it could catch upon the river side. Among many victims was a fine mare belonging to an Arab in the village of Nega-il-Arab, half an hour's walk from the river. The mare, as is usual, was allowed her freedom to graze in the coarse abundant pasturage, and whilst drinking was suddenly seized in the back of the neck by the jaws of the crocodile. The mare being an animal of great power, in an agony of pain, violently threw up her head, and with it the crocodile, which dropped on her back, and with her unwonted burden she galloped off to her stable. The astonished villagers belaboured the crocodile so heartily with their "naboot" (stout sticks common to every Fellah), that it was soon induced to let go its hold and dismount; but the mare died from the joint effects of its wounds and the fright.

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* Reprinted from the 'Field' newspaper.

The breeding season of the crocodile takes place during the low stage of the river in March, and they deposit their eggs in the sand on the banks, or, in preference, in small sand-banks or islands in the stream. The eggs are white, hard, and in size not unlike those of a domestic goose; the exact measurement of one I found in the Nouaer country, on the White River, being $3\frac{1}{2}$ inches in length and $5\frac{13}{16}$ inches in circumference. Cuvier observes that, of all animals, the crocodile attains the greatest dimensions, considering its size at birth.

Fearful combats take place between the males for the females, the largest and most powerful one invariably monopolising the latter in his district.

When about to lay, the female crocodile, having made choice of a spot, will dig with her claws in the sand a hole about six inches deep, drop her egg therein and carefully cover it. She will then proceed to make several similar holes around the first, in order to mislead any one in search of her treasure. Daily she will contribute one egg to her store, at the same time carefully widening the excavation, turning the eggs and re-covering them with sand. Unless disturbed she will lie near or over them, and leave them but for a short time to feed in their close vicinity, and she will even then watch them zealously by raising her head to the surface of the water, and occasionally run towards them at short intervals to satisfy herself that all is right, and return to her feeding-ground. The number of eggs depends upon the age and size of the animal, and varies from forty to sixty.

At the commencement of the hatching season the nest is widened to accommodate the eggs, being arranged close to each other and equidistant from the surface. A slighter covering is now placed over them, so that incubation by means of the sun's heat may take place. During this stage the attention of the animal towards her eggs is redoubled in watching and turning them, and it is dangerous for a single person to approach the spot, as she will fearlessly attack and give chase at considerable speed. After such a circumstance, or if on her return from feeding, she should discover traces of man or beast in the vicinity of her charge, the wary crocodile will decamp with her eggs in her mouth and seek for another locality.

From various sources I am informed the hatching time takes ninety days, therefore it is during the first increase of the Nile that exclusion takes place. The mother, then carrying off her young in her mouth, will place them in the shallow water of some retired creek or in a crevice in the bank, where she will nourish them until able to accompany her and prey upon small fry for themselves.

It is well known that these reptiles, although they seize their prey under water, cannot under the same circumstances swallow it, and must proceed to shore for that purpose, where, resting on their fore legs and the head out of water, they are enabled to feed. Large animals or man when caught are retained under water until putrefaction commences before they are devoured.

Men who in Egypt devote much of their time to the destruction of these animals, like our friend Saleh Abt il Samad, throw up low embankments twenty or thirty yards from the river side, in localities where they love to bask in the sun. A few days suffice to accustom the wary reptiles to the new objects, and, lying close in ambush behind one or the other, the skilled hunter seldom passed a day without a shot. Swimming lazily towards the shore, with the tip of the nose and eyes only above the water, a careful survey is taken before the crocodile ventures to expose itself on the land; then, sometimes lingering on the water's edge, at others taking a short run, the reptile will cast a hurried and uneasy glance around, and seeing nothing to fear will lie down, but will for some time retain its head elevated on the watch. Gradually overcome with sleep by the influence of the sun, the head at length drops until prostrate upon the sand. Saleh, who has been narrowly watching the above proceedings from behind his bulwark, and whose nerves have been as irritable as those of his unconscious prey were tranquil, fires, and if fortunate enough to plant his ball in the brain, the crocodile, after a twitch or two of the tail, remains on the spot; but if, although hit hard, that organ has remained intact the crocodile attempts to escape, pursued by our hero, who seizes the tail, and lifting its extremity as high as possible from the ground, thus rendering the animal powerless, so succeeds in arresting its progress for a second, until a companion shall have battered in its skull with an axe.

This Saleh admits is dangerous work, but practice makes perfect. If the wounded animal is conscious of his approach the tail is instantly curved to receive him. Placing himself in the arc described by it he escapes injury, but if on the wrong side a blow from it might be fatal.

The negroes spear and catch crocodiles with baited lines, and on our subsequent progress through the Shillook, Dinka and Jangal districts we have picked up several of these lines, which, in lieu of a hook, are armed with a piece of hard wood a foot in length, pointed at each end and attached in its centre to the line. A fish, bird, or flesh or entrails of any animal serve for a bait, and when, as usual, greedily taken, the short line is torn from its slender fastenings on the bank, but a float indicating its whereabouts, the negroes pursue in canoes and spear the crocodile.

What strange things sometimes happen! On the 21st of April, in company with three other boats belonging to our expedition, we were becalmed, and were towing with great difficulty among the rank high weeds on the western bank in the Nouaer district. Whilst I was employed in writing the above from my notes, one of our sailors in swimming on board, and when within a couple of strokes only from the boat, was seized by a crocodile, and instantly drawn beneath the surface in deep water to appear no more.

JOHN PETHERICK.

The Nouaer Country, White Nile.

Proceedings of Societies.

Entomological Society.

October 5, 1863.—F. P. Pascoe, Esq., V.P., in the chair.

Donations to the Library.

The following donations were announced, and thanks returned to the respective donors:—'The Journal of the Royal Agricultural Society of England,' Vol. xxiv. Part 2; presented by the Society. 'Sitzungsberichte du Königl. bayer. Akademie der Wissenschaften zu München,' 1863, I. Heft. 3; by the Academy. 'The Intellectual Observer,' No. 21; by the Publishers. 'On the Development of Chloëon (Ephemera) dimidiatum,' Part 1; 'On the Development of Lonchoptera,' by John Lubbock, Esq., F.R.S., F.L.S., F.Z.S.; by the Author. 'Exotic Butterflies,' No. 48; by W. W. Saunders, Esq. 'The Zoologist' for October; by the Editor. 'The Journal of the Society of Arts' for September; by the Society. 'The Farm and Garden,' Vol. ii. No. 22; Vol. iii. Nos. 25, 26, 27, 28 and 29; by C. A. Wilson, Esq., Corr. Memb. Ent. Soc. 'The Athenæum' for September; by the Editor. 'The Reader' for September; by the Editor.

Exhibitions, &c.

Prof. Westwood supplemented the account he had given at the last Meeting of the method pursued at Dresden in the preservation of larvæ, by stating that the larva-skin was not first blown out and afterwards placed in a glass vase over a lamp, but the skin was first placed within the vase and blown whilst actually suspended over the lamp, by which means the rapidity of the skin's drying was much increased; it was done with a small tube or blow-pipe fixed at the end of a bladder, which was held under the arm or between the knees, so as to leave the hands at liberty; and the straw which was inserted into the body of the larva was fastened by a cross-pin stuck through the skin, which was thus retained in its proper position throughout the process of blowing.

Mr. W. W. Saunders exhibited some young Swede turnips, the lower part of the roots of which had been consumed by the larvæ of Agrotis segetum; the young plants had been very healthy, and promised an excellent crop; three weeks later they ceased to grow, and became yellow, which was attributed at the time to the weather; a fortnight afterwards a careful examination was made, and it was discovered that the roots were attacked just below the surface of the ground; scarcely one was affected above the surface, but the whole under part of the tubers was eaten away, four or five larvæ being found in each turnip, and the whole crop, three acres in extent, being entirely destroyed. He should be glad to hear of any remedy, or rather of some mode of preventing such destruction in future.

Prof. Westwood referred to Curtis's 'Farm Insects,' where many suggestions were made for preventing the ravages of the larvæ of A. segetum, or "surface grubs," as they were called. He himself believed that there was no plan so efficacious as employing children to pick and destroy the grubs, or turning a lot of ducks into the field.

Mr. Saunders pointed out that all the remedies suggested by Curtis were inapplicable to the present case, where the grubs were only found under ground, and within the earth-covered part of the root; in fact, the natural plan of getting at the grub was to pluck up the turnip; he was afraid that nothing would be effectual, short of discovering and destroying the eggs of the parent moth.

Mr. Stainton exhibited living larvæ of Anesychia bipunctella, from Wiesbaden; the species was formerly supposed to occur in this country, and, though now included amongst the reputed British Tineæ, might not improbably be found here again.

Mr. Stainton also exhibited specimens of Tortrix grandævana, *Zel.* (= tussiliginiana, *H. S.*), a large and prominent species, the larva of which was found on sand-hills on the shores of the Baltic, fed on the roots of the common coltsfoot (*Tussilago*), and formed perpendicular tubes in the sand, of the thickness of a man's little finger, within which it turned to the pupa; frequently the surrounding sand was blown away, and the tubes thus exposed were opened at the top by birds, which came in quest of the fat pupa within. This also was a species not unlikely to be found in this country, now that its habit had been discovered.

Mr. W. W. Saunders mentioned that one of his sons had observed, at Valencia, some sand-tubes which corresponded exactly with Mr. Stainton's description, and the origin of which he had hitherto been unable to explain.

Prof. Westwood exhibited some larva-cases of Psyche helicina; also some Trichopterous larva-cases, found at Mentone, and coated over with particles of stone; the silken grating spun by the full-grown larva when about to turn to the pupa, which was said to be usually at the head only of the case, was in this species spun at both ends, and this circular silken covering was closed up throughout one half of the circle, whilst the remaining semicircle was radiated open-work; the cases also had a long tail or appendage, which looked like a piece of grass or straw attached to the end. The species was Aspatherium picicorne; and out of one of the specimens the Professor had had the pleasure of extracting a parasitic Ichneumon, Agriotypus armatus, whose habit it was to descend beneath the surface of the water for the purpose of depositing its eggs upon the Trichopterous larva-case.

Mr. M'Lachlan remarked that, according to Von Siebold, all the specimens affected by the parasite had a peduncle attached to the case; but the appendage to the cases exhibited appeared to be nothing but straw or vegetable matter.

Prof. Westwood also exhibited specimens of a beetle belonging to the family Nitidulidæ, which was parasitic in the nest of Trigona carbonaria, the honey bee of New South Wales: the wax which accompanied the specimens of the beetle sent to him was merely a rude shapeless mass, and he was unable to ascertain whether or not the Trigona made cells; he had also been desirous of discovering whether the larva of the beetle fed upon the larva of the bee, or upon the wax: with this view he had placed pieces of cooked meat before the larvæ, but they avoided it, and many of them died; upon the removal of the meat, he put in portions of the wax, which was soon found with the Coleopterous larvæ crawling over it.

The President sent for exhibition some specimens of the same beetle, accompanied by the following note:—

"This very interesting insect was obtained by Mr. T. W. Woodbury, of Exeter, from a nest of Trigona carbonaria, in which it lives, feeding upon the wax of which the combs are composed. The nest came from Brisbane, in Queensland. Specimens of the insect have been forwarded to Mr. Murray, who has so long worked upon the family of the Nitidulidæ, to which it belongs; and he informs me that it is the Brachypeplus auritus of his work, the ear-like form of the basal joint of the antennæ having suggested its specific name. The insect is closely allied to the British Carpophilus hemipterus, which is frequently found in great numbers feeding upon figs; both select a sweet and nourishing substance upon which to feed, both in the larval and perfect condition. I hope on another occasion to give some account of the nest in which the beetle was found, as my friend Mr. Woodbury proposes a thorough investigation of it."

Mr. Bates exhibited some South-American palm-nuts attacked by the larvæ of Caryoborus cardo, one of the Bruchidæ, which had recently been received by Mr. Cutter, of the Crystal Palace; specimens of the imago, of the larva in various stages of growth, and of the nuts in corresponding stages of destruction, were shown; the nuts belonged to three species of palm, of which the largest was probably the Maximiliana regia. A similar disappointment had occurred to Bonpland, who brought over a number of nuts from New Granada, intending to plant them in France, but on his arrival the whole were found to be attacked by the larvæ of Caryoborus curvipes.

Mr. Cutter (who was present as a visitor) explained the circumstances under which he had received the palm-nuts: 1000 specimens of each kind had been sent by Mr. Henderson, of Parà, and the consignment would have been worth £30, if not attacked by the larvæ, from which, however, scarcely a single nut was free, whilst some contained as many as a dozen grubs.

A letter from Mr. John Young, of No. 80, Guildford Street, addressed to the Treasurer, was read, in which the writer complained of the presence of large swarms of a small ant in the kitchen of his house, and enquired what means could be adopted to rid the house of such a pest.

Mr. Bates suggested a search for the nest, and when found to deluge it with hot water.

Prof. Westwood said that, many years ago, a Committee of the Society had examined into this very subject, and the conclusion arrived at was that the most efficacious plan was to make a careful search for the principal runs, and place therein pieces of raw meat; these were quickly covered with ants, which might at once be put into boiling water and destroyed, and the process then be repeated.

Mr. Stainton gave the following account of the Entomological Proceedings of the 38th meeting of German Naturalists, held at Stettin, from the 18th to the 24th of September last:—

"Monday, September 21, 1863, under the Presidency of Herr von Kiesenwetter.

"Director Loew exhibited his work on the European Trypetidæ, and called attention to the twenty-six photographic figures, which had been executed at the Royal Printing Press at Vienna.

"Dr. Kraatz, of Berlin, reduced Melolontha albida of Redtenbacher, from Austria, and M. albida of Mulsant, from France, as also M. candicans of Burmeister, by the help of Grecian specimens, to the ordinary cockchafer (*Melolontha vulgaris*), and showed that Greek female specimens were hardly to be distinguished, or were quite undistinguishable from the Rhineland M. albida of Erichson (Rhenana, *Bach*), without, however, being able with certainty to refer the last-named species to M. vulgaris as a variety. The fourth German species, M. aceris, *Erichson*, was identical with the M. albida of Bach, and must be called M. pectoralis of Germar.

"Herr v. Kiesenwetter, in reference to the preceding and to the Darwinian theory, suggested to entomologists that in no other branch of science did material stand so ready to hand for making experiments in breeding by selection the commonest species of insects.

"Herr Toepffer, of Stettin, explained how he had succeeded, by means of a breeding apparatus, in obtaining healthy larvæ and imagos from the eggs of Bombyx Mori brought by the Prussian expedition from Japan, so that he had already distributed eggs gratis amongst 150 breeders, who were, almost without exception, very well satisfied with the results; the species seemed well acclimatized and produced each year better cocoons. Herr Toepffer expressed himself little satisfied with the Ailanthus and Ricinus larvæ recommended by Guérin-Menéville. In conclusion he exhibited cocoons of the different races, and various manufactures of Pomeranian silk."

"Wednesday, September 23, 1863; under the Presidency of Herr Schulrath Suffrian.

"Professor Münter spoke concerning the Fungi parasitic on insects, and exhibited a larva of Bombyx pudibunda with a huge Gordiceps, and a Carabus nemoralis with Sphærius entomorhiza. He called on entomologists to direct their attention to these objects when collecting.

"Herr Stein, of Berlin, Director Loew, and Dr. Hagen spoke of similar appearances amongst exotic insects.

"Dr. Hartig, from Brunswick, made a communication respecting the Calobates Rhizomæ, recently discovered by him, and exhibited a specimen. It is an insect allied to Aphis, which occurs at the roots of fir trees, and is distinguished by a perfectly anomalous structure of the legs, since the tibia and tarsus are grown together in one straight piece. He also stated that Hylesinus micans, and especially Pissodes Hercyniæ, had lately become highly injurious to the forests of Brunswick and Hanover, and that along with them their foes, Cryptus impressus, Conites Hercyniæ, &c., had appeared, of which he exhibited several bred from Pissodes larvæ.

"Director Loew made a long discourse on the anatomical peculiarities of Oncodes varius; his conclusion (which, in reference to the allied anatomy of the Cyrtidæ, seemed well founded) was, that Oncodes should be referred to the neighbourhood of the Bombylidæ.

"Dr. Hagen spoke concerning the respiratory organs of Euphæa splendens, on which a discussion arose, in which Director Loew, Professor Grube, and others took part.

"Dr. Rogenhofer, from Vienna, exhibited specimens of both sexes of Pyralis luridalis of Fischer, of which the older name was connectalis of Hübner; he also spoke concerning the habits of Cephus spinipes and Cephus compressus.

"Professor Hering, of Stettin, remarked that Leucania Elymi, now that its habits were known, had been obtained in considerable plenty on the sand-hills near the Baltic amongst Elymus arenarius."

Paper read.

Mr. Baly read a paper entitled "Descriptions of New Phytophaga," in which were described fifteen new species, nearly all belonging to the true Chrysomelidæ.

New Part of 'Transactions.'

A new Part of the 'Transactions,' Third Series, Vol. i. Part 7, being the third quarterly part for 1863, was on the table.—*J. W. D.*

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CONTENTS.

SUCKLERS.—The Otter near Liverpool, 8801. A Whale stranded at Speke, 8801.

BIRDS. — The Ornithology of Formosa, or Taiwan, *Robert Swinhoe, F.Z.S., &c.*, 8802. The Osprey at Uxbridge, *J. Edmund Harting*, 8813. Osprey in Cambridgeshire, *John Baker*, 8813. Food of Small Birds, *G. Roberts, Col. H. W. Newman, Alfred Newton, M.A., J. Edmund Harting*, 8813—8816. Scarcity of certain Summer Birds, *W. Jeffery, jun.*, 8816. Arrival and Departure of Summer Birds at Taunton, *Cecil Smith*, 8816. Fascination of Birds by Light, *Henry L. Saxby, M.D.*, 8817. Nesting and Eggs of various Birds, *Charles Stubbs*, 8817. Barn Owls four in a Nest, *Robert H. Leven*, 8818. Note on the Shorteared Owl, *S. P. Saville*, 8818. Pied Flycatcher near Land's End, *Edward Hearle Rodd*, 8818. Golden Oriole in the Isle of Wight, *H. Rogers*, 8819. Scarcity of Redstarts, *Col. H. W. Newman*, 8819. A Word for the Stonechat, *S. P. Saville*, 8819. The Dartford Warbler on the Banks of the Thames at Woolwich, *H. Whitely, jun.*, 8819. Gray Wagtail an Autumn Visitor to Shetland; Notes on the Rosecoloured Pastor, *Henry L. Saxby, M.D.*, 8819, 8820. A Note on Pipits, 8822. Notes and Queries on the Cuckoo, 8822. Occurrence of the Grass Parrakeet at Westerdale, in Cleveland, *Rev. J. C. Atkinson, M.A.*, 8823. Slate-coloured Variety of the Chimney Swallow; A Swallow turning Pirate, *S. P. Saville*, 8824. Scarcity of Swallows, *Col. H. W. Newman*, 8824. White Swallow near Beverley, *W. W. Boulton*, 8825. Late Stay of Swifts, *W. Farren, Joshua Whiting*, 8825. Hoopoe in the Isle of Wight; Rock Dove in the Isle of Wight, *H. Rogers*, 8825. Pallas' Sand Grouse in Suffolk and Norfolk, *H. Stevenson*, 8826. Pallas' Sand Grouse in China, 8826. Quail shot near Beverley, *W. W. Boulton*, 8827. Occurrence of Temminck's Stint at Scilly; The Spotted Redshank in Cornwall, *Edward Hearle Rodd*, 8827. Ruff shot near Beverley, *W. W. Boulton*, 8827. Reeves in the Isle of Wight, *H. Rogers*, 8827. The Curlew Sandpiper near Yarmouth, *J. Edmund Harting*, 8827. The Rednecked Phalarope near Chichester, *W. Jeffery, jun.*, 8828. Gray Phalarope near Greenock, *John Kerr*, 8828. A List of the Waders that have occurred at Kingsbury Reservoir during the Summer of 1863, *J. Edmund Harting*, 8828. Notice of a singular Duck shot near Beverley, *W. W. Boulton*, 8831. The Little Auk and Spotted Crake in Devonshire; Razorbills and Guillemots in Devonshire, *J. Gatcombe*, 8832.

REPTILES.—The Deaf or Death-Adder of Australia, *H. M. Fuller*, 8833. Crocodiles in the Nouaer Country, White Nile, *John Petherick*, 8833.

PROCEEDINGS OF SOCIETIES.—Entomological Society, 8837.

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